

**CITY OF NEWTON  
PURCHASING DEPARTMENT**

***CONTRACT FOR THE PUBLIC WORKS DEPARTMENT***

**PROJECT MANUAL:  
CENTRAL CORE REPAIRS  
at  
The Waban Hill Reservoir  
*INVITATION FOR BID #11-59***

**Pre-Bid Meeting: March 10, 2011 at 2:30 p.m.  
Bid Opening Date: March 17, 2011 at 11:00 a.m.**

*Prepared by:*

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**MARCH 2011  
Setti D. Warren, Mayor**

# CITY OF NEWTON, MASSACHUSETTS

## PURCHASING DEPARTMENT

[purchasing@newtonma.gov](mailto:purchasing@newtonma.gov)

Fax (617) 796-1227

March 14, 2011

## ADDENDUM #1

### INVITATION FOR BID #11-59

### WABAN HILL RESERVOIR IMPROVEMENTS – CENTRAL CORE REPAIRS

THIS ADDENDUM IS TO: **Change the following Item previously advertised:**

#### SPECIFICATIONS

1. **Invitation to Bid**

- a. **Reference page 4 of 146. For clarification purposes, the Pre-Bid Meeting held on March 10, 2011 was not a mandatory meeting, and therefore attendance is not required to be eligible to bid.**

All other terms and conditions of this bid remain unchanged.

**PLEASE ENSURE THAT YOU ACKNOWLEDGE THIS ADDENDUM ON YOUR BID FORM.**

Thank you.



Rositha Durham  
*Chief Procurement Officer*

**CITY OF NEWTON**  
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Must be obtained online at [www.ci.newton.ma.us/bids](http://www.ci.newton.ma.us/bids)

Effective April 14, 2010 the City of Newton, Purchasing Department is providing all Invitation For Bids (IFBs) and Plans online. Bidders must download the files from the Purchasing department's web site listed above. Directly under the IFB # (i.e., #11-59) there will be one file: "IFB".

**END OF SECTION**

CITY OF NEWTON

PURCHASING DEPARTMENT

INVITATION FOR BID No. 11-59

The City of Newton invites sealed bids from Contractors for

**CENTRAL CORE REPAIRS at The Waban Hill Reservoir**

**Pre bid will be held at: \*2:30 p.m., March 10, 2011, 155 Waban Hill Road North, Newton, MA**

**Bids will be received until: \*11:00 a.m., March 17, 2011**

at the Purchasing Department, Room 204, Newton City Hall, 1000 Commonwealth Ave., Newton, MA 02459. Immediately following the deadline for bids all bids received within the time specified will be publicly opened and read aloud.

Contract Documents will be available **online at the City's website: [www.ci.newton.ma.us/bids](http://www.ci.newton.ma.us/bids)** after: **10:00 a.m., March 2, 2011.**

Once you've downloaded this bid from the internet website ([www.ci.newton.ma.us/bids](http://www.ci.newton.ma.us/bids)) I strongly suggest you email ([purchasing@newtonma.gov](mailto:purchasing@newtonma.gov)) your company's Name, address, EMAIL, phone, fax AND the INVITATION FOR BID NUMBER and Project Title, so that we may add you to the Bidders List and you will be notified of any/all addendums.

**The work of this contract includes all labor, materials, and equipment required to complete the CENTRAL CORE REPAIRS at the Waban Hill Reservoir as described within this project manual.**

All bids shall be submitted as one ORIGINAL and one COPY. Award will be made to the bidder with the lowest total contract price that has been deemed responsible and eligible.

All bids must be accompanied by a bid deposit in an amount that is not less than five percent (5%) of the value of the bid, including all add alternates. Bid deposits, payable to the City of Newton, shall be either in the form of a bid bond, cash, or a certified check, or a treasurer's or cashier's check issued by, a responsible bank or trust company.

All bids are subject to the provisions of M.G.L. Chapter 30, Section 39M. **Wages are subject** to minimum wage rates determined by the Massachusetts Department of Labor and Industries pursuant to M.G.L. Chapter 149, Sec. 26 to 27H. The schedule of wage rates applicable to this contract is included in the bidding documents. In addition, the prevailing wage schedule will be updated annually for all public construction projects lasting longer than one (1) year. You will be required to pay the rates set out in any updated prevailing wage schedule. Increases in prevailing wage schedules will not be the basis for change order requests. The successful bidder will be required to provide a Certificate of Insurance demonstrating current coverage of the type and amounts set forth in the Project Manual. The successful bidder will be required to furnish a **Labor and Materials Payment Bond in the amount of 50%** of the contract total.

Bidders attention is directed to the requirements of the City of Newton Supplemental Equal Employment Opportunity, Anti-Discrimination and Affirmative Action Program and also to the Minority/Women Business Enterprise Plan, December 1999, all of which are hereby incorporated into the Contract Documents. In the event of conflict between any of the above listed policies, the stricter policy shall apply.

The City of Newton's Purchasing Dept. converted to an email notification system of all upcoming public bids effective July 1, 2009. If you wish to receive notification of bids, please email us your company information to [purchasing@newtonma.gov](mailto:purchasing@newtonma.gov).

The City of Newton will reject any and all bids when required to do so by the above referenced General Laws. In addition, the City of Newton reserves the right to waive any informalities in any or all bids, or to reject any or all bids, in whole or in part, if it be in the public interest to do so.

CITY OF NEWTON

Rositha Durham

Chief Procurement Officer

March 2, 2011

***\*PLEASE NOTE: the PRE-BID Date and OPENING Date have been changed from what was originally advertised. PLEASE NOTE: The project is changed from what was originally advertised. This project is not DCAM Certified.***

**CITY OF NEWTON**  
**DEPARTMENT OF PURCHASING**  
**INSTRUCTIONS TO BIDDERS**

**ARTICLE 1 - BIDDER'S REPRESENTATION**

- 1.1 Each General Bidder (hereinafter called the "Bidder") by making a bid (hereinafter called "bid") represents that:
1. The Bidder has read and understands the Contract Documents and the bid is made in accordance therewith.
  2. The Bidder has visited the site and is familiar with the local conditions under which the Work has to be performed.
- 1.2 Failure to so examine the Contract Documents and site will not relieve any Bidder from any obligation under the bid as submitted.

**ARTICLE 2 - REQUEST FOR INTERPRETATION**

- 2.1 Bidders shall promptly notify the City of any ambiguity, inconsistency, or error which they may discover upon examination of the Contract Documents, the site, and local conditions.
- 2.2 Bidders requiring clarification or interpretation of the Contract Documents shall make a written request to the *Chief Procurement Officer*, at [purchasing@newtonma.gov](mailto:purchasing@newtonma.gov) or via facsimile (617) 796-1227. The City will answer such requests if received Thursday, **March 10, 2011** at 3:00 p.m.
- 2.3 Interpretation, correction, or change in the Contract Documents will be made by Addendum which will become part of the Contract Documents. The City will not be held accountable for any oral instruction.
- 2.4 Addenda will be emailed to every individual or firm on record as having taken a set of Contract Documents.
- 2.5 Copies of addenda will be made available for inspection at the location listed in the Invitation for Bids where Contract Documents are on file, in addition to being available online at [www.ci.newton.ma.us/bids](http://www.ci.newton.ma.us/bids).
- 2.6 Bidders downloading information off the internet web site are solely responsible for obtaining any addenda prior to the bid opening. If the bidder makes themselves known to the Purchasing Dept., at [purchasing@newtonma.gov](mailto:purchasing@newtonma.gov) or via facsimile (617) 796-1227, they shall be placed on the bidder's list. Bidders must provide the Purchasing Dept. with their company's name, street address, city, state, zip, phone, fax, email address and **INVITATION FOR BID NUMBER #11-59**.

**ARTICLE 3 - MBE PARTICIPATION**

- 3.1 Notice is hereby given that the Mayor's Affirmative Action Plan for the City of Newton, dated December 1999 is applicable to all construction contracts in excess of \$10,000.00. A copy of this plan is on file at City of Newton Purchasing Department.
- 3.2 Notice is hereby given that the City of Newton Minority/Women Business Enterprise Plan dated December 1999 and the Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program is applicable to all City contracts for goods and services in excess of \$50,000.00. Copies of these plans are incorporated in the bidding documents.

## ARTICLE 4 - PREPARATION AND SUBMISSION OF BIDS

- 4.1 Bids shall be submitted on the "Bid Form" as appropriate, furnished by the City.
- 4.2 All entries on the Bid Form shall be made by typewriter or in ink.
- 4.3 Where so indicated on the Bid Form, sums shall be expressed in both words and figures. Where there is a discrepancy between the bid sum expressed in words and the bid sum expressed in figures, the words shall control.
- 4.4 Bid Deposits shall be submitted in the amount specified in the Invitation for Bids. They shall be made payable to the City of Newton and shall be either in the form of cash, certified check, treasurer's or cashier's check issued by a responsible bank or trust company, or a bid bond issued by a surety licensed to do business in the Commonwealth of Massachusetts; and shall be conditioned upon the faithful performance by the principal of the agreements contained in the bid.

Bid deposits of the three (3) lowest responsible and eligible Bidders shall be retained until the execution and delivery of the Owner/Contractor agreement.

- 4.5 The Bid, including the bid deposit shall be enclosed in a sealed envelope with the following plainly marked on the outside:

\* GENERAL BID FOR:

\* NAME OF PROJECT AND INVITATION NUMBER

\* BIDDER'S NAME, BUSINESS ADDRESS, AND PHONE NUMBER

- 4.6 Date and time for receipt of bids is set forth in the Invitation for Bids.
- 4.7 Timely delivery of a bid at the location designated shall be the full responsibility of the Bidder.
- 4.8 Bids shall be submitted with one **original** and one **copy**.
- 4.9 Be advised that a new Massachusetts law has been enacted that required all employees who work on Massachusetts public works construction sites must have no less than 10 hours of OSHA-approved safety and health training. See Chapter 306 of the Acts of 2004, which will become effective July 1, 2006.
  - 1. This requirement will apply to any general bid or sub bid submitted on or after July 1, 2006 and to any contract awarded on or after July 1, 2006.
  - 2. This law directs the Massachusetts Attorney General to restrain the award of construction contracts to any contractor who is in violation to this requirement and to restrain the performance of these contracts by non-complying contractors.
  - 3. The contractor and all subcontractors on this project will be required to provide certification of compliance with this requirement. Non-compliance with this new Massachusetts Law will disqualify you from bidding on public contracts.

## ARTICLE 5 - ALTERNATES

- 5.1 Each Bidder shall acknowledge Alternates (if any) in Section C on the Bid Form.
- 5.2 In the event an Alternate does not involve a change in the amount of the base bid, the Bidder shall so indicated by writing "No Change", or "N/C" or "0" in the space provided for that Alternate.
- 5.3 Bidders shall enter on the Bid Form a single amount for each Alternate which shall consist of the amount for work performed by the Contractor.
- 5.4 The low Bidder will be determined on the basis of the sum of the base bid and the accepted alternates.

## ARTICLE 6 - WITHDRAWAL OF BIDS

- 6.1 Any bid may be withdrawn prior to the time designated for receipt of bids on written or telegraphic request. Telegraphic withdrawal of bids must be confirmed over the Bidder's signature by written notice postmarked on or before the date and time set for receipt of bids.
- 6.2 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids.
- 6.3 No bids shall be withdrawn within thirty days, Saturdays, Sundays and legal holidays excluded, after the opening of the bids.

## ARTICLE 7 - CONTRACT AWARD

- 7.1 The City of Newton will award the contract to the lowest eligible and responsible Bidder within thirty days, Saturdays, Sundays, and legal holidays excluded after the opening of bids.
- 7.2 The City of Newton reserves the right to waive any informalities in or to reject any or all Bids if it be in the public interest to do so.
- 7.3 As used herein, the term "lowest responsible and eligible Bidder" shall mean the Bidder (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (3) who, where the provisions of section eight B of chapter twenty-nine apply, shall have been determined to be qualified thereunder.
- 7.4 Subsequent to the award and within five (5) days, Saturday, Sundays and legal holidays excluded, after the prescribed forms are presented for signature, the successful Bidder shall execute and deliver to the City a Contract in the form included in the Contract Documents in such number of counterparts as the City may require.
- 7.5 In the event that the City receives low bids in identical amount from two or more responsive and responsible Bidders, the City shall select the successful Bidder by a blind selection process such as flipping a coin or drawing names from a hat. The low Bidders who are under consideration will be invited to attend and observe the selection process.

## ARTICLE 8 - TAXES

- 8.1 The Bidder shall not include in this bid any tax imposed upon the sale or rental of tangible personal property in this Commonwealth, such as any and all building materials, supplies, services and equipment required to complete the work.
- 8.2 The City is exempt from payment of the Massachusetts Sales Tax, and the Bidder shall not include any sales tax on its bid. The City's exemption Number is E-046-001-404.

**END OF SECTION**

**CITY OF NEWTON**  
**DEPARTMENT OF PURCHASING**  
**BID FORM – Bid #11-59**

**TO THE AWARDING AUTHORITY:**

**A.** The undersigned proposes to furnish all labor and materials required for

**CENTRAL CORE REPAIRS**  
**at The Waban Hill Reservoir**

in Newton, Massachusetts in accordance with the accompanying plans and specifications prepared by the City of Newton for the contract price specified below, subject to additions and deductions according to the terms of the specifications.

**B.** This bid includes addenda number(s) \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**C.** The total contract price is:

**BASE BID SCHEDULE**

Item No.	Approx. Qty.	Item and Unit Prices Bid	Unit Prices		Amount	
			Dollars	Cents	Dollars	Cents
1	1 Lump Sum	Painting Interior of Central Core Standpipe  _____ _____ lump sum	Lump Sum			
2	500 Pits	Welding of Corrosion Pits (1/8" deep)  _____ _____ each				
3	5 S.F.	¼" Patch Welding  _____ _____ per square foot				
4	5 Gal.	Filling Corrosion Pits with Surfacer  _____ _____ per gallon				

Item No.	Approx. Qty.	Item and Unit Prices Bid	Unit Prices		Amount	
			Dollars	Cents	Dollars	Cents
5	1 Lump Sum	Painting Exterior of Central Core Standpipe  _____ _____ lump sum	Lump Sum			
6	1 Lump Sum	Painting Piping and Valves  _____ _____ lump sum	Lump Sum			
7	1 Lump Sum	Central Core Standpipe Cover  _____ _____ lump sum	Lump Sum			

BASE BID - TOTAL AMOUNT OF BASE BID PROPOSAL BASED ON ENGINEER'S ESTIMATE OF QUANTITIES

\_\_\_\_\_ DOLLARS

AND \_\_\_\_\_ CENTS

(\$ \_\_\_\_\_)

COMPANY: \_\_\_\_\_

**D.** The undersigned has completed and submits herewith the following documents:

- ☐ A five percent (5%) bid deposit/bid guarantee.
- ☐ Signed Bid Form, 2 pages
- ☐ Certificate of Non-Collusion
- ☐ Bidder's Qualifications and References Form, 2 pages

**E.** The undersigned agrees that, if s/he is selected as general contractor, s/he will within five days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of this bid and furnish a labor and materials or payment bond, each of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority and each in the sum of the contract price, the premiums for which are to be paid by the general contractor and are included in the contract price.

The undersigned hereby certifies that s/he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that s/he will comply fully with all laws and regulations applicable to awards made subject to section forty-four A of M.G.L. Chapter 30, s 39M.

The undersigned certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) that all employees to be employed at the worksite will have successfully

completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration ("OSHA") that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and (3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States OSHA that is at least 10 hours in duration. The undersigned understands that any employee found on a worksite subject to this section without documentation of successful completion of a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration shall be subject to immediate removal.

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

Date \_\_\_\_\_

\_\_\_\_\_  
(Name of General Bidder)

BY: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name and Title of Signatory)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(City, State Zip)

\_\_\_\_\_/\_\_\_\_\_  
(Telephone) (FAX)

\_\_\_\_\_  
(E-mail)

**NOTE:** If the bidder is a corporation, indicate state of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses of all partners; and if an individual, give residential address if different from business address.

**END OF SECTION**

## CITY OF NEWTON

### BIDDER'S QUALIFICATIONS AND REFERENCES FORM

All questions must be answered, and the data given must be clear and comprehensive. Please type or print legibly. If necessary, add additional sheet for starred items. This information will be utilized by the City of Newton for purposes of determining bidder responsiveness and responsibility with regard to the requirements and specifications of the Contract.

1. FIRM NAME: \_\_\_\_\_
2. WHEN ORGANIZED: \_\_\_\_\_
3. INCORPORATED? ☒ YES ☐ NO DATE AND STATE OF INCORPORATION: \_\_\_\_\_
- \* 4. LIST ALL CONTRACTS CURRENTLY ON HAND, SHOWING CONTRACT AMOUNT AND ANTICIPATED DATE OF COMPLETION:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- \* 5. HAVE YOU EVER FAILED TO COMPLETE A CONTRACT AWARDED TO YOU?  
☐ YES ☐ NO  
IF YES, WHERE AND WHY?  
\_\_\_\_\_  
\_\_\_\_\_
- \* 6. HAVE YOU EVER DEFAULTED ON A CONTRACT? ☐ YES ☐ NO  
IF YES, PROVIDE DETAILS.  
\_\_\_\_\_  
\_\_\_\_\_
- \* 7. LIST YOUR VEHICLES/EQUIPMENT AVAILABLE FOR THIS CONTRACT:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- \* 8. IN THE SPACES FOLLOWING, PROVIDE INFORMATION REGARDING CONTRACTS COMPLETED BY YOUR FIRM SIMILAR IN NATURE TO THE PROJECT BEING BID. A MINIMUM OF FOUR (4) CONTRACTS SHALL BE LISTED. PUBLICLY BID CONTRACTS ARE PREFERRED, BUT NOT MANDATORY.  
  
PROJECT NAME: \_\_\_\_\_  
OWNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_  
DOLLAR AMOUNT: \$ \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_  
PUBLICLY BID? ☐ YES ☐ NO  
TYPE OF WORK?: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_ TELEPHONE #: (\_\_\_\_)\_\_\_\_\_  
CONTACT PERSON'S RELATION TO PROJECT?: \_\_\_\_\_  
(i.e., contract manager, purchasing agent, etc.)  
\_\_\_\_\_

PROJECT NAME: \_\_\_\_\_  
OWNER: \_\_\_\_\_  
CITY/STATE: \_\_\_\_\_  
DOLLAR AMOUNT: \$ \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_  
PUBLICLY BID? ☐ YES ☐ NO  
TYPE OF WORK?: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_ TELEPHONE #: (\_\_\_\_)\_\_\_\_\_  
CONTACT PERSON'S RELATION TO PROJECT?: \_\_\_\_\_  
(i.e., contract manager, purchasing agent, etc.)  
\_\_\_\_\_

PROJECT NAME: \_\_\_\_\_  
OWNER: \_\_\_\_\_  
CITY/STATE: \_\_\_\_\_  
DOLLAR AMOUNT: \$ \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_  
PUBLICLY BID? ☐ YES ☐ NO  
TYPE OF WORK?: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_ TELEPHONE #: (\_\_\_\_)\_\_\_\_\_  
CONTACT PERSON'S RELATION TO PROJECT?: \_\_\_\_\_  
(i.e., contract manager, purchasing agent, etc.)  
\_\_\_\_\_

PROJECT NAME: \_\_\_\_\_  
OWNER: \_\_\_\_\_  
CITY/STATE: \_\_\_\_\_  
DOLLAR AMOUNT: \$ \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_  
PUBLICLY BID? ☐ YES ☐ NO  
TYPE OF WORK?: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_ TELEPHONE #: (\_\_\_\_)\_\_\_\_\_  
CONTACT PERSON'S RELATION TO PROJECT?: \_\_\_\_\_  
(i.e., contract manager, purchasing agent, etc.)

9. The undersigned certifies that the information contained herein is complete and accurate and hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the City of Newton in verification of the recitals comprising this statement of Bidder's qualifications and experience.

DATE: \_\_\_\_\_ BIDDER: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

PRINTED NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

**END OF SECTION**

## **CERTIFICATE OF NON-COLLUSION**

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word “person” shall mean any natural person, business, partnership, corporation, union, committee club, or other organization, entity, or group or individuals.

\_\_\_\_\_  
(Signature of individual)

\_\_\_\_\_  
Name of Business

## CONTRACT FORMS

The forms are provided for informational purposes only.

The awarded bidder will be required to complete and submit the following documents in order to execute a contract pursuant to this bid.

**None of the following forms are required at the time of bid submittal.**

# CITY-CONTRACTOR AGREEMENT

## CONTRACT NO. C-

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_ in the year Two Thousand and Eleven by and between the CITY OF NEWTON, a municipal corporation organized and existing under the laws of the Commonwealth of Massachusetts, hereinafter referred to as the CITY, acting through its Chief Procurement Officer, but without personal liability to him, and

hereinafter referred to as the CONTRACTOR.

The parties hereto for the consideration hereinafter set forth agree as follows:

**ARTICLE 1. STATEMENT OF WORK.** The Contractor shall furnish all labor, materials, and equipment and perform all work required in strict accordance with the Contract Documents for the following project:

### **CENTRAL CORE REPAIRS at The Waban Hill Reservoir**

**ARTICLE 2. TIME OF COMPLETION.** The Contractor shall commence work under this Contract on the date specified in the written notice of the City to proceed and shall fully complete all work hereunder within the time stated, 30 calendar days, in the contract documents.

**ARTICLE 3. THE CONTRACT PRICE.** The City shall pay the Contractor for the full and satisfactory performance of the Contract, in current funds the sum of:

(\$       )

**ARTICLE 4. CONTRACT DOCUMENTS.** The Contract Documents consist of the following documents which are either attached to this Agreement or are incorporated herein by reference:

- a. This CITY-CONTRACTOR Agreement;
- b. The City's Invitation For Bid #11-59 issued by the Purchasing Department;
- c. The Project Manual for **Central Core Repairs – at the Waban Hill Reservoir** including the Instructions to Bidders; General Conditions; Special Conditions; MWBE/AA Requirements, Wage Rate Requirements and Wage Rate Schedule(s) including any updated prevailing wage rate schedules if applicable; The Supplementary Special Conditions; General Requirements and Project Specifications; and Drawings, if included or referenced therein;
- d. Addenda Number(s)\_\_\_\_\_ ;
- e. The Bid Response of the CONTRACTOR submitted for this Project and accompanying documents and certifications;
- f. Certificate(s) of Insurance and surety bond(s) submitted by the CONTRACTOR in connection with this Project;

- g. Duly authorized and executed Amendments, Change Orders or Work Orders issued by the CITY after execution of this CITY-CONTRACTOR Agreement.

This CITY-CONTRACTOR Agreement, together with the other documents enumerated in this Article, constitute the entire Agreement between the CITY and the CONTRACTOR.

**ARTICLE 5. ALTERNATES.** The following Alternates have been accepted and their costs are included in the Contract Price stated in Article 3 of this Agreement:

Alternates: N/A

**ARTICLE 6. APPLICABLE STATUTES.** All applicable federal, state and local laws and regulations are incorporated herein by reference and the Contractor agrees to comply with same.

IN WITNESS WHEREOF, the parties have caused this instrument to be executed under seal the day and year first above written.

**CONTRACTOR**

**CITY OF NEWTON**

By \_\_\_\_\_  
Title \_\_\_\_\_

By \_\_\_\_\_  
*Chief Procurement Officer*

Date \_\_\_\_\_

Date \_\_\_\_\_

*Affix Corporate Seal here*

By \_\_\_\_\_  
*Commissioner of Public Works*

Date \_\_\_\_\_

City funds in the amount of \_\_\_\_\_ are  
available in account number  
**38D11501-5825**  
I further certify that the Mayor  
is authorized to execute contracts  
and approve change orders

Approved as to Legal Form and Character

By \_\_\_\_\_  
*Associate City Solicitor*

By \_\_\_\_\_  
*Comptroller of Accounts*

Date \_\_\_\_\_

Date \_\_\_\_\_

**CONTRACT AND BONDS APPROVED**

By \_\_\_\_\_  
*Mayor or his designee*

Date \_\_\_\_\_

## CERTIFICATE OF AUTHORITY - CORPORATE

1. I hereby certify that I am the Clerk/Secretary of \_\_\_\_\_  
(insert full name of Corporation)
2. Corporation, and that \_\_\_\_\_  
(insert the name of officer who signed the **contract and bonds.**)
3. is the duly elected \_\_\_\_\_  
(insert the title of the officer in line 2)
4. of said corporation, and that on \_\_\_\_\_  
(insert a date that is ***ON OR BEFORE*** the date the officer signed the **contract and bonds.**)

at a duly authorized meeting of the Board of Directors of said corporation, at which all the directors were present or waived notice, it was voted that

5. \_\_\_\_\_ the \_\_\_\_\_  
(insert **name** from line 2) (insert **title** from line 3)

of this corporation be and hereby is authorized to execute contracts and bonds in the name and on behalf of said corporation, and affix its Corporate Seal thereto, and such execution of any contract of obligation in this corporation's name and on its behalf, with or without the Corporate Seal, shall be valid and binding upon this corporation; and that the above vote has not been amended or rescinded and remains in full force and effect as of the date set forth below.

6. ATTEST: \_\_\_\_\_ *AFFIX CORPORATE  
SEAL HERE*  
(Signature of **Clerk or Secretary**)\*
7. Name: \_\_\_\_\_  
(Please print or type name in line 6)\*
8. Date: \_\_\_\_\_  
(insert a date that is ***ON OR AFTER*** the date the officer signed the **contract and bonds.**)

\* The name and signature inserted in lines 6 & 7 **must** be that of the **Clerk or Secretary** of the corporation.

## ATTESTATION

Pursuant to MG c. 62C, § 49A, the undersigned acting on behalf of the Contractor, certifies under the penalties of perjury that, to the best of the undersign's knowledge and belief, the Contractor is in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.\*

\_\_\_\_\_  
\*\*Signature of Individual  
or Corporate Contractor (Mandatory)

\_\_\_\_\_  
\*\*\* Contractor's Social Security Number  
(Voluntary) or Federal Identification Number

By: \_\_\_\_\_  
Corporate Officer  
(Mandatory, if applicable)

Date: \_\_\_\_\_

\* The provision in the Attestation relating to child support applies only when the Contractor is an individual.

\*\* Approval of a contract or other agreement will not be granted unless the applicant signs this certification clause.

\*\*\* Your social security number will be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended. This request is made under the authority of GL c. 62C, § 49A.

## CITY OF NEWTON, MASSACHUSETTS

### PAYMENT BOND

Know All Men By These Presents:

That we, \_\_\_\_\_, as PRINCIPAL, and \_\_\_\_\_, as SURETY, are held and firmly bound unto the City of Newton as Obligee, in the sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_) to be paid to the Obligee, for which payments well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the said PRINCIPAL has made a contract with the Obligee, bearing the date of \_\_\_\_\_ 2011 for the construction of \_\_\_\_\_ in Newton, Massachusetts.  
(Project Title)

Now, the conditions of this obligation are such that if the PRINCIPAL and all Sub-contractors under said contract shall pay for all labor performed or furnished and for all materials used or employed in said contract and in any and all duly authorized modifications, alterations, extensions of time, changes or additions to said contract that may hereafter be made, notice to the SURETY of such modifications, alterations, extensions of time, changes or additions being hereby waived, the foregoing to include any other purposes or items set out in, and to be subject to, provisions of M.G.L. c. 30, sec. 39A, and M.G.L. c. 149 sec. 29, as amended, then this obligation shall become null and void; otherwise it shall remain in full force, virtue and effect.

In Witness Whereof, the PRINCIPAL and SURETY have hereto set their hands and seals this \_\_\_\_ day of \_\_\_\_\_ 2010.

PRINCIPAL

SURETY

\_\_\_\_\_

\_\_\_\_\_

BY \_\_\_\_\_  
(SEAL)

BY \_\_\_\_\_  
(ATTORNEY-IN-FACT) (SEAL)

\_\_\_\_\_  
(Title)

ATTEST: \_\_\_\_\_

ATTEST: \_\_\_\_\_

## **CITY OF NEWTON**

### **GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION**

#### **1.0 DEFINITIONS**

##### **1.1 THE CONTRACT DOCUMENTS**

The term "Contract Documents" sometimes also referred to as the "Contract", means the contract entered into between the City of Newton (hereinafter "City") and the Contractor. It includes the Invitation for Bid, General Bid Form, Contract Form, these General Conditions of the Contract, Supplements and Amendments to the General Conditions (if any), Contract Specifications, Drawings, all addenda issued prior to execution of the contract, the Bid Bond, the Labor and Material Payment Bond, or other assurances of completion, the applicable wage rate determinations, and other documents listed in the Agreement and modifications issued after execution of the contract.

##### **1.2 THE WORK**

The term "Work", sometimes also referred to as the "Project", means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligation.

##### **1.3 OWNER**

The term "Owner" is the City of Newton.

##### **1.4 CONTRACT OFFICER**

The terms "Contract Officer" or "Project Manager" means the person appointed by the Owner to administer the terms of the Contract between the Owner and the Contractor, who is also empowered to take certain actions under this Agreement.

##### **1.5 CONTRACTOR**

1.5.1 The Contractor, sometimes referred to as the General Contractor, is the person or entity identified as such throughout the Contract Documents as if singular in number. The term Contractor means the Contractor or its authorized representative.

1.5.2 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract.

##### **1.6 SUBSTANTIAL COMPLETION**

The term "Substantial Completion" means the value of the work remaining to be performed by the Contractor is, in the estimate of the awarding authority, less than one percent (1%) of the original contract price.

#### **2.0 CONTRACT ADMINISTRATION**

##### **2.1 PRE-CONSTRUCTION CONFERENCE**

2.1.1 Prior to commencement of the Work, the Contractor shall meet in conference with representatives of the Owner regarding the Owner's requirements under the Contract for administration of the quality assurance program, safety program, labor provisions, the schedule of work, and other Contract procedures.

2.1.2 The Contractor shall begin work upon receipt of a written Notice to Proceed from the Contract Officer or designee. The Contractor shall not begin work prior to receiving such notice.

## **2.2 CONTRACT PERIOD**

The Contractor shall complete all work required under this contract within the timeframe specified elsewhere in this document, or within the time schedule established in the notice to proceed issued by the Contracting Officer.

## **2.3 REJECTION OF DEFECTIVE MATERIALS AND WORK**

The Owner's inspection of the Work shall not relieve the Contractor of any of its responsibilities to fulfill the Contract obligations, and defective work shall be corrected without cost to the Owner. Unsuitable work may be rejected by the Owner, notwithstanding that such work and materials have been previously overlooked or misjudged by the Owner and accepted for payment. If the Work or any part thereof shall be found defective at any time before the final acceptance of the whole Work, the Contractor shall forthwith correct such defect in a manner satisfactory to the Owner, and if any material brought upon the site for use in the Work, or selected for the same, shall be rejected by the Owner as unsuitable or not in conformity with the Contract requirements, the Contractor shall forthwith remove such materials from the vicinity of the Work.

## **2.4 CHANGES**

2.4.1 All changes in the work including any increase, decrease, or other equitable adjustment in the Contract price or in the time for performing the Contract, shall be authorized in writing by the Owner and/or Contract Officer prior to commencement.

## **2.5 PAYMENTS**

### **2.5.1 CONTRACT PRICE**

The Contract Price is stated in the Contract Form, and including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

## **2.6 APPLICATIONS FOR PAYMENT**

2.6.1 Once each month, on a date established by the Owner at the beginning of the Work, the Contractor shall deliver to the Owner an itemized Application for Payment, supported by such data substantiating the Contractor's right to payment as the Owner may require, and reflecting a minimum of 5% retainage until the final acceptance and payment by the Owner.

2.6.2 The Owner shall make payment to the Contractor within 15 days of receipt of said application, less any applicable retainage.

2.6.3 The Owner may make changes in any application for payment submitted by the Contractor for:

- i. Retention based on the value of its claims against the Contractor,
- ii. Retention of 5% of the approved amount of the Application for Payment.

## **2.7 FINAL PAYMENT**

The acceptance by the Contractor of the last payment due under this Contract or the execution of the Final Certificate of Completion, shall operate as a release to the Owner from all claims and liability related to this Contract.

## **2.8 GUARANTY AND WARRANTY**

### **2.8.1 WARRANTY**

The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

### **2.8.2 GENERAL GUARANTY**

If at any time during the period of one (1) year from the date of Substantial Completion of the Work to be performed under this Contract, any part of the Work shall, in the reasonable determination of the Owner, require replacing or repairing due to the fact that it is broken, defective, or otherwise does not conform to the Contract Documents, the Owner will notify the Contractor to make the required repairs or replacement. If the Contractor shall neglect to commence such repairs or replacement to the satisfaction of the Owner within ten (10) days from the date of giving or mailing such notice, then the Owner may employ other persons to make the same. The Contractor agrees, upon demand, to pay to the Owner all amounts which the Owner expends for such repairs or replacements. During this one year guarantee period any corrective work shall be performed in accordance with the applicable terms of this Contract. For items of work completed after use and occupancy has been taken, the one year guarantee shall commence at the time the Owner accepts such items. This one year guarantee shall not limit any express guaranty or warranty provided elsewhere in the Contract.

## **2.9 INSURANCE REQUIREMENTS**

2.9.1 The Contractor shall provide insurance coverage as listed below. This insurance shall be provided at the Contractor's expense and shall be in full force and effect during the full term of this Contract.

### **WORKER'S COMPENSATION**

Worker's Compensation: Per M.G.L. c.. 149, s. 34 and c.. 152 as amended.

### **COMMERCIAL GENERAL LIABILITY**

Personal Injury	\$500,000 each occurrence \$1,000,000 aggregate
Property Damage	\$500,000 each occurrence \$1,000,000 aggregate

### **VEHICLE LIABILITY**

Personal Injury	\$500,000 each person \$1,000,000 aggregate
Property Damage	\$300,000

## **2.9.2 OWNER AS CO-INSURED**

The Owner shall be named as additional insureds on the Contractor's Liability Policies.

## **2.9.3 CERTIFICATES OF INSURANCE, POLICIES**

- i. The Contractor shall not commence the work until proof of compliance with this Section 2.9 has been furnished to the Owner by submitting one copy of a properly endorsed insurance certificate issued by a company authorized to write insurance in the Commonwealth. This certificate shall indicate that the contractual liability coverage is in force.
- ii. The Contractor shall file the original and one certified copy of all policies with the Owner within fifteen (15) days after contract award. If the Owner is damaged by the Contractor's failure to maintain such insurance and to so notify the Owner, then the Contractor shall be responsible for all reasonable costs attributable thereto.

## **2.9.4 CANCELLATION**

Cancellation of any insurance required by this contract, whether by the insurer or the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and Owner at least thirty days prior to the effective date thereof, which shall be expressed in said notice.

## **2.10 INDEMNIFICATION**

The Contractor shall take all responsibility for the Work and take all precautions for preventing injuries to persons and property in or about the Work; shall bear all losses resulting to or on account of the amount or character of the Work. The Contractor shall pay or cause payment to be made for all labor performed or furnished and for all materials used or employed in carrying out this Contract. The Contractor shall assume the defense of, and indemnify and save harmless the Owner, and the Owner's officers and

agents from all claims relating to labor performed or furnished and materials used or employed for the Work; to inventions, patents and patent rights used in and in doing the Work unless such patent infringement is due to a product or process specified by the Owner; to injuries to any person or corporation received or sustained by or from the Contractor and any employees, and subcontractors and employees, in doing the work, or in consequence of any improper materials, implements or labor used or employed therein; and to any act, omission or neglect of the Contractor and any employees therein.

## **2.11 BONDS**

The Contractor shall provide the Owner with a performance and with a payment or labor and materials bond in the form provided by the Owner, executed by a surety company licensed by the Commonwealth of Massachusetts' Division of Insurance. Such bond shall be in an amount equal to at least one half of the Contract price unless otherwise stated in the Contract Documents. All bonds shall be accompanied by a current power of attorney.

## **2.12 TERMINATION**

### **2.12.1 TERMINATION FOR CAUSE**

- i. The Owner may terminate this contract for cause if it determines that any of the following circumstances have occurred:
  - a. The Contractor is adjudged bankrupt or has made a general assignment for the benefit of its creditors.
  - b. A receiver has been appointed of the Contractor's property.
  - c. All or a part of the Work has been abandoned.
  - d. The Contractor has sublet or assigned all or any portion of the Work, the Contract, or claims thereunder, without the prior written consent of the Owner, except as provided in the Contract.
  - e. The Owner has determined that the rate of progress required on the project is not being met.
  - f. The Contractor has substantially violated any provisions of this Contract.
- ii. The Owner may complete the Work, or any part thereof, and charge its expense of so completing the Work or part thereof, to the Contractor.
- iii. The Owner may take possession of and use any materials, machinery, implements and tools found upon the site of said Work. The Owner shall not be liable for any depreciation, loss or damage to said materials, machinery, implements or tools during said use and the Contractor shall be solely responsible for their removal from the Project site after the Owner has no further use for them.

### **2.12.2 TERMINATION - NO FAULT**

- i. In the event that this Contract is terminated by the Owner, prior to the completion of construction and termination is not based on a reason listed in Paragraph 2.12.1, the Contractor shall be compensated for its costs incurred on the Project, including reasonable costs of de-mobilization, covering the period of time between the last approved application for payment and the date of termination.
- ii. Payment by the Owner pursuant to Section 2.7 shall be considered to fully compensate the Contractor for all claims and expenses and those of any consultants, subcontractors, and suppliers, directly or indirectly attributable to the termination, including any claims for lost profits.

## **2.13 PERMITS, FEES, AND NOTICES**

- 2.13.1 The Contractor shall secure and the Owner shall pay for the building permit, if required. The Contractor shall coordinate all efforts required to obtain this permit. All other permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work shall be secured and paid for by the Contractor.
- 2.13.2 The Contractor shall comply with and give notices required by laws, ordinances rules, regulations, and lawful orders of public authorities bearing on performance of the Work.
- 2.13.3 If the Contractor performs Work that it knows or reasonably should know is contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Owner, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs.

## **2.14 SAFETY REQUIREMENTS**

- 2.14.1 The Contractor shall comply with all Federal, State, and local safety laws and regulations applicable to the Work performed under this Contract.

## **2.15 TEMPORARY HEATING**

Not required; do not install UST VAULT COVER REPLACEMENT - MEMORIAL SPAULDING SCHOOL in any space which is not heated properly.

## **2.16 AVAILABILITY AND USE OF UTILITY SERVICES**

- 2.16.1 The City shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the Contract. Unless otherwise provided in the Contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the City or, where the utility is produced by the City, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

## **2.17 DISPUTES**

- 2.17.1 "Claim," as used in this section, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under the Contract, unlike a claim relating to the Contract, is a claim that can be resolved under a Contract clause that provides for the relief sought by the claimant. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this section, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- 2.17.2 All disputes arising under or relating to this Contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this section.
- 2.17.3 All claims by the Contractor shall be made in writing and submitted to the Contract Officer for a written decision. A claim by the City against the Contractor shall be subject to a written decision by the Contract Officer.
- 2.17.4 The Contract Officer shall, within thirty (30) days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.
- 2.17.5 The Contract Officer's decision shall be final unless the Contractor files suit in a court of competent jurisdiction. Such appeal must be made within One hundred Twenty (120) days after receipt of the Contract Officer's decision.
- 2.17.6 The Contractor shall proceed diligently with performance of this Contract and/or any authorized change thereof, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the Contract and/or any authorized change thereof, and comply with any decision of the Contract Officer.

## **2.18 LIQUIDATED DAMAGES**

- 2.18.1 If the Contractor fails to complete the Work within the time specified in the contract, or any extension thereof, the Contractor shall pay to the City as liquidated damages, the sum of \$50.00 for each day of delay. Completion dates are specified in the Contract for separate phases of the work, and the amount of liquidated damages shall be assessed on each and every phase which is delayed. In the context of this paragraph, "delay" means failure to provide UST VAULT COVER REPLACEMENT - MEMORIAL SPAULDING SCHOOL on the date required by Contractor, who is the Owner's Contractor. To the extent that the Contractor's delay or nonperformance is excused under another section in this Contract, liquidated damages shall not be due the City. The Contractor remains liable for damages caused other than by delay.
- 2.18.2 If the City terminates the Contractor's right to proceed pursuant to section 2.12.1, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the Work together with any increased costs to the City in completing the Work.

- 2.18.3 If the City does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the Work is completed or accepted.

### **3.0 SALES TAX EXEMPTION AND OTHER TAXES**

- 3.0.1 To the extent that materials and supplies are used or incorporated in the performance of this Contract, the Contractor is considered an exempt purchaser under the Massachusetts Sales Act, Chapter 14 of the Acts of 1966.
- 3.0.2 The Contractor shall be responsible for paying all other taxes and tariffs of any sort, related to the Work.

### **3.1 PROHIBITION AGAINST LIENS**

The Contractor is prohibited from placing a lien on the City's property. This prohibition shall apply to all subcontractors at any tier and all materials suppliers.

### **3.2 ORDER OF PRECEDENCE**

In the event of a conflict between these General Conditions and the Specifications, the General Conditions shall prevail. In the event of a conflict between these General Conditions and the Supplementary Special Conditions, the Supplementary Special Conditions shall prevail. In the event of a conflict between the Contract and any applicable state or local law or regulation, the state or local law or regulation shall prevail; provided that such state or local law or regulation does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

### **3.3 EXAMINATION AND RETENTION OF CONTRACTOR'S RECORDS**

The City of Newton shall, until three (3) years after final payment under this Contract, have access to and the right to examine any of the Contractor's directly pertinent books, documents, papers, or other records involving transactions related to this Contract for the purpose of making audit, examination, excerpts, and/or transcriptions.

**END OF SECTION**

**SPECIAL CONDITIONS - COMMONWEALTH OF MASSACHUSETTS & CITY OF NEWTON**

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## **SPECIAL CONDITIONS - COMMONWEALTH OF MASSACHUSETTS**

### **Article 1. METHOD OF PAYING SUBCONTRACTORS**

**(General Laws, Chapter 30, Section 39F as most recently amended by Chapter 450, §76 of the Acts of 1996)**

(1.) Every contract awarded pursuant to section forty-four A to L, inclusive, of chapter one hundred and forty-nine shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the general contractor and each subcontractor.

(a) Forthwith after the general contractor receives payment on account of a periodic estimate, the general contractor shall pay to each subcontractor the amount paid for the labor performed and the materials furnished by the subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(b) Not later than the sixty-fifth day after each subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract less amounts retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the subcontractor; and the awarding authority shall pay that amount to the general contractor. The general contractor shall forthwith pay to the subcontractor the full amount received from the awarding authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(c) Each payment made by the awarding authority to the general contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a subcontractor shall be made to the general contractor for the account of that subcontractor, and the awarding authority shall take reasonable steps to compel the general contractor to make each such payment to each such subcontractor. If the awarding authority has received a demand for direct payment from a subcontractor for any amount which has already been included in a payment to the general contractor or which is to be included in a payment to the general contractor for payment to the subcontractor as provided in subparagraphs (a) and (b), the awarding authority shall act upon the demand as provided in this section.

(d) If, within seventy days after the subcontractor has substantially completed the subcontract work, the subcontractor has not received from the general contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the subcontractor may demand direct payment of the balance from the awarding authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the general contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the subcontractor has substantially completed the subcontract work. Within ten days after the subcontractor has delivered or so mailed the demand to the awarding authority and delivered or so mailed a copy to the general contractor, the general contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the awarding authority and a copy shall be delivered to or sent by certified mail to the subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor and of the amount due for each claim made by the general contractor against the subcontractor.

(e) Within fifteen days after receipt of the demand by the awarding authority, but in no event prior to the seventieth day after substantial completion of the subcontract work, the awarding authority shall make direct payment to the subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount (i) retained by the awarding authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the general contractor in the sworn reply; provided, that the awarding authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The awarding authority shall make further direct payments to the subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

(f) The awarding authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the general contractor and the subcontractor in a bank in Massachusetts selected by the awarding authority or agreed upon by the general contractor and the subcontractor and shall notify the general contractor and the subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the

amount in the account, including accrued interest, as provided in an agreement between the general contractor and the subcontractor or as determined by a decree of a court of competent jurisdiction.

(g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account for accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable to the general contractor at the time of receipt of a demand for direct payment from a subcontractor and out of amounts which later become payable to the general contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the awarding authority to the general contractor to the extent of the such payment.

(h) The awarding authority shall deduct from payments to a general contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from subcontractors. All such amounts shall be earmarked for such direct payments, and the subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the general contractor.

(i) If the subcontractor does not receive payment as provided in subparagraph (a) or if the general contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the subcontractor and the subcontractor does not receive payment for same when due less the deductions provided for in subparagraph (a), the subcontractor may demand direct payment by following the procedure in subparagraph (d) and the general contractor may file a sworn reply as provided in that same subparagraph. A demand made after the first day of the month following that for which the subcontractor performed or furnished the labor and materials for which the subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the general contractor. Thereafter the awarding authority shall proceed as provided in subparagraph (e), (f), (g) and (h).

## **Article 2. METHOD OF PAYING GENERAL CONTRACTORS**

**(General Laws, Chapter 30, Section 39K as most recently amended by Chapter 145 of the Acts of 1991 and Chapter 151 of the Acts of 1993.)**

Every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the commonwealth, or by any county, city, town, district, board, commission or other public body, when the amount is more than five thousand dollars in the case of the commonwealth and more than two thousand dollars in the case of any county, city, town, district, board, commission or other public body, shall contain the following paragraph:--Within fifteen days (forty-five days in the case of the commonwealth, including local housing authorities) after receipt from the contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make a periodic payment to the contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, less (1) a retention based on its estimate of the fair value of its claims against the contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and less (3) a retention not exceeding five per cent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty-five days after (a) the contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the awarding authority, less than one per cent of the original contract price, or (b) the contractor substantially completes the work and the awarding authority takes possession for occupancy, whichever occurs first, the awarding authority shall pay the contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, or based on the record of payments by the contractor to the subcontractors under this contract if such record of payment indicates that the contractor has not paid subcontractors as provided in section thirty-nine F. If the awarding authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the contractor; provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen days (twenty-four days in the case of the commonwealth) after receipt of such a periodic estimate from the contractor, at the place designated by the awarding authority if such a place is so designated. The contractor agrees to pay to each subcontractor a portion of any such interest paid in accordance with the amount due each subcontractor.

The awarding authority may make changes in any periodic estimate submitted by the contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the awarding

authority may, within seven days after receipt, return to the contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty-nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

All periodic estimates shall be submitted to the awarding authority, or to its designee as set forth in writing to the contractor, and the date of receipt by the awarding authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed subtrade and each sub-subtrade listed in sub-bid form as required by specifications and a column listing the amount paid to each subcontractor and sub-subcontractor as of the date the periodic estimate is filed. The person making payment for the awarding authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

A certificate of the architect to the effect that the contractor has fully or substantially completed the work shall, subject to the provisions of section thirty-nine J, be conclusive for the purposes of this section.

### **Article 3. CLAIMS FOR UNFORESEEN CONDITIONS**

**(General Laws, Chapter 30, Section 39N as most recently amended by Chapter 774 of the Acts of 1972)**

Every contract subject to section forty-four A of chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an awarding authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

If, during the progress of the work, the contractor or the awarding authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the contractor or the contracting authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a contractor, or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the contracting authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly.

### **Article 4. CLAIMS FOR DELAY**

**(General Laws, Chapter 30, Section 390 as added by Chapter 116 of the Acts of 1973)**

Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the awarding authority increases the cost of performance to any subcontractor, that subcontractor shall have the same rights against the general contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the general contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the general contractor or the subcontractor may have against each other.

(a) The awarding authority may order the general contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority; provided however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the general contractor on such increase; and provided further, that the awarding authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing, as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final

payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more than twenty days before the general contractor notified the awarding authority in writing of the act of failure to act involved in the claim.

## **Article 5. DECISIONS AND APPROVALS BY ENGINEER OR ARCHITECT**

**(General Laws, Chapter 30, Section 39P, as added by Chapter 1164 of the Acts of 1973)**

Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine which requires the awarding authority, any official, its architect or engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any event, no later than thirty days after the written submission for decision; but if such decision requires extended investigation and study, the awarding authority, the official, architect or engineer shall, within thirty days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made.

## **Article 6. PREFERENCE IN EMPLOYMENT, WAGES**

**(General Laws, Chapter 149 Section 26 as most recently amended by Chapter 665 of the Acts of 1986 and Chapter 552 of the Acts of 1991).**

In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works by the commonwealth, or by a county, town or district, or by persons contracting or subcontracting for such works, preference shall first be given to citizens of the commonwealth who have been residents of the commonwealth for at least six months at the commencement of their employment who are male veterans as defined in clause Forty-third of section seven of chapter four, and who are qualified to perform the work to which the employment relates; and secondly, to citizens of the commonwealth generally who have been residents of the commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provision to this effect. Each county, town or district in the construction of public works, or persons contracting or subcontracting for such works, shall give preference to veterans and citizens who are residents of such county, town or district. The rate per hour of the wages paid to said mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works shall not be less than the rate or rates of wages to be determined by the commissioner as hereinafter provided; provided, that the wages paid to laborers employed on said works shall not be less than those paid to laborers in the municipal service of the town or towns where said works are being constructed; provided, further, that where the same public work is to be constructed in two or more towns, the wages paid to laborers shall not be less than those paid to laborers in the municipal service of the town paying the highest rate; provided, further, that if, in any of the towns where the works are to be constructed, a wage rate or wage rates have been established in certain trades and occupations by collective agreements or understandings in the private construction industry between organized labor and employers, the rate or rates to be paid on said works shall not be less than the rates so established, provided, further that in towns where no such rate or rates have been so established, the wages paid to mechanics and apprentices, teamster, chauffeurs and laborers on public works, shall not be less than the wages paid to the employees in the same trades and occupations by private employers engaged in the construction industry. This section shall also apply to regular employees of the commonwealth or of a county, town or district, when such employees are employed in the construction, addition to or alteration of public buildings for which special appropriation of more than One Thousand Dollars are provided. Payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans under collective bargaining agreements or understandings between organized labor and employers shall be included for the purpose of establishing minimum wage rates as herein provided.

## **Article 7. HOURS OF WORK**

**(General Laws, Chapter 149 Section 34 as most recently amended by Chapter 552 of the Acts of 1991).**

Every contract, except for the purchase of material or supplies, involving the employment of laborers, workmen, mechanics, foremen or inspectors, to which the commonwealth or any county or town, subject to section thirty, is a party, shall contain a stipulation that no laborer, workman, mechanic, foreman or inspector working within the commonwealth, in the employ of the contractor, subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, or more than six days in any one week, except in case of emergency, or, in case any town subject to section thirty-one is a party to such a contract, more than eight hours in any one day, except as aforesaid, provided, that in contracts entered into by the department of highways for the construction or reconstruction of highways there may be inserted in said stipulation a provision that

said department, or any contractor or subcontractor for said department, may employ laborers, workmen, mechanics, foremen and inspectors for more than eight hours in any one day in such construction or reconstruction when, in the opinion of the commissioner of labor and industries, public necessity so requires. Every such contract not containing the aforesaid stipulation shall be null and void.

#### **Article 8. WORK BY FOREIGN CORPORATIONS**

**(General Laws, Chapter 30 Section 39L, as most recently amended by Chapter 3 of the Acts of 1967).**

The Commonwealth and every county, city, town, district, board, commission or other public body which, as the awarding authority, requests

proposals, bids or subbids for any work in the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or other public works (1) shall not enter into a contract for such work with, and shall not approve as a subcontractor furnishing labor and materials for a part of any such work, a foreign corporation which has not filed with such awarding authority a certificate of the state secretary stating that such corporation has complied with sections three and five of chapter one hundred and eighty-one and the date of such compliance, and (2) shall report to the state secretary and to the department of corporations and taxation any foreign corporation performing work under such contract or subcontract, and any person, other than a corporation, performing work under such contract or subcontract, and residing or having a principal place of business outside the Commonwealth.

**END OF SECTION**

## SUPPLEMENTARY SPECIAL CONDITIONS

The following provisions supplement the General Conditions of the Contract. In the event of conflict or discrepancy between the General Conditions and these Supplementary Special Conditions, the provisions of the Supplementary Special Conditions shall govern.

### 1.0 SUMMARY OF WORK

#### A. The Work under the Contract consists of:

1. Furnishing all labor, materials, tools, equipment and supervision necessary to accomplish the work described herein, in accordance with all specifications and requirements of the Project Manual.
2. All work either shown on the Drawings (if any) or included in the specifications unless specifically indicated as not to be done.

#### B. In addition, the work under the Contract includes:

1. Work outside the Project Site as called for in the Contract Documents and as required for the performance of the Work.
2. The restoration of any items damaged or destroyed by encroaching upon areas outside the Project Site.
3. Providing and restoring, where appropriate, all temporary facilities.

#### C. The Proposed Contract Price shall be complete costs, including overhead, profit, insurance, transportation, and all other costs connected with, or incidental to, the work described.

### 2.0 PROJECT SITE

#### A. **The Waban Hill Reservoir, Newton, Massachusetts**

### 3.0 NOTICE TO PROCEED/FAILURE TO COMMENCE WORK

#### A. In the event of Contractor's failure to commence work within the time required by these specifications, the City shall exercise all provisions contained in the General Conditions regarding default, suspension or termination of this contract.

### 4.0 PAYMENT

#### A. Upon receipt of the Application for Payment, the City will, within fifteen days, make payment in full for Work completed and accepted during the preceding month, less a retainage of 5% of the estimated total. The City will make final payment for completed Work, including any retained amounts, upon completion and acceptance of the Work and receipt of an Application for Payment at the end of the month in which the Work is completed and accepted.

### 5.0 COMMUNICATIONS

#### A. All notices, demands, requests, instructions, approvals and claims must be in writing.

#### B. Any such notice shall be deemed to have been given as of the time of delivery, or of actual receipt in the case of telegrams or, in the case of mailing, when it should have been received in due course of post.

#### C. For communicating purposes, the office address of the Contractor shall be that stated on the signature page of the contract; that of the City shall be as stated in the Invitation for Bids. Any subsequent change in address of either party shall be communicated to the other in writing.

## 6.0 PLANS AND SPECIFICATIONS

- A. The City will furnish to the Contractor, without charge, all copies of the plans and specifications reasonably necessary in the performance of the contract work.

## 7.0 COORDINATION

The Contractor shall:

- A. Supply to the City the name and telephone number of a responsible person who may be contacted during off-hour emergencies during the term of the Contract.
- B. Cooperate at all times with the City and the Project Manager, and ensure the cooperation of his key personnel and that of his subcontractors.

## 8.0 CONDUCT OF THE WORK

- A. The work must be completed in a continuous uninterrupted operation. The Contractor must use sufficient workforce and adequate equipment to complete all the necessary work requirements within a minimum period of time.
- B. See Specifications for information regarding work hours and work days.
- C. Under no circumstances will the contractor be paid at a premium or overtime rate for any work performed without the express advance authorization of the City.
- D. The Contractor is responsible for the security of partially completed work until the project is finally accepted by the City.

## 9.0 ALTERATION

- A. The Contractor shall patch, repair and/or replace all existing materials and surfaces remaining exposed after installation of new work which have been affected by alteration or removal of existing work. All patch and repair work shall match existing.

## 10.0 GENERAL DIRECTIONS

- A. Damage to Persons and Property

Any damage to buildings, roads, public roads, bituminous concrete areas, fences, lawn areas, trees, shrubbery, electric or telephone poles, underground utilities, etc., shall be repaired by the Contractor at his own expense. Damaged property shall be returned to its original condition prior to the damages within a reasonable time period, except all utility outages shall be repaired immediately.

- B. Protection of Persons and Property

The Contractor shall, at all times, leave an unobstructed way along the roadways and walks, and shall maintain barriers and lights for the protection of all persons and property in all locations where he has materials stored or work going on, and during the entire time such work is going on or material is stored.

- C. Shutdown of Services

The Contractor's attention is especially called to the fact that continuous operation of building utilities and services is mandatory. During the period of construction of the new work and/or alterations to the existing work, the progress and sequence of installation shall be carefully planned and approved by the City. If any building is to be left without heat, hot water, city water, electricity, gas, sanitary facilities, or any other services, the Contractor shall provide reasonable written notice to the City before proceeding.

- D. Care of Work

All work is to be carefully protected so that no injury will come to it from water, frost, accident, or any other cause and any injury which may come to any of the work shall be repaired immediately by the Contractor at his own expense and without additional cost to the City. This shall also apply to any abutting or adjoining work on premises. The Contractor shall be responsible for any damage and in the event of such damage, the Contractor shall repair the damage immediately at his own cost and without additional cost to the City.

E. Removal of Debris

Debris of any nature shall be completely removed from the site at the end of each days work and disposed of in accordance with all Federal, State and local regulations.

F. The Contractor is responsible for the security of all work until it is accepted by the City.

#### 11.0 TEMPORARY UTILITIES

- A. Prior to execution of the Work, the Contractor shall confer with a representative of the Public Building Department regarding the use of utilities and facilities at the worksite. No City utilities or facilities are to be used by the Contractor in the performance of this Contract without the prior approval of the City.

#### 12.0 SUBMISSION OF PAYROLLS

- A. The Contractor shall, with each invoice submitted during the term of this Contract, submit to the City two (2) legible copies of his payrolls documenting the wages paid to all employees performing on site labor relating to the work of this Contract. These copies shall be prepared on forms supplied by the City.

#### 13.0 DRAWINGS

- A. The drawings attached herein and such drawings as may be issued per addendum, shall constitute an integral part of this section and shall serve as the working drawings.
- B. Drawings shall not be scaled. Field verification is directed since actual locations, dimensions and levels are existing.
- C. All items not specifically mentioned in the specifications or noted on the drawings, but which are obviously necessary to make a complete working installation, shall be included.

#### 14.0 MATERIALS

- A. Unless specifically so stated to the contrary the use of a manufacturer's name or style number is not restrictive, and is intended solely as an identification of the type and quality of the materials and services required. In all cases, the words "or approved equal" if not inserted are implied.
- B. An item equal to that named or described in the specifications may upon written approval of the City be furnished by the Contractor. An item shall be considered equal to the item so named or described if (1) it is at least equal in quality, durability, appearance, strength and design; (2) it will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased; (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the specifications.
- C. The name and identification of all materials other than the one specifically named shall be submitted to the City in writing for approval, prior to purchase, use or fabrication of such items. Approval shall be at the sole discretion of the City, shall be in writing to be effective, and the decision of the City shall be final. The City may require tests of all materials so submitted to establish quality standards at the Contractor's expense.
- D. For the use of material other than the one specified, the Contractor shall assume the cost of and responsibility for satisfactorily accomplishing all changes that may be required in the work as shown. All directions, specifications and recommendations by manufacturers for the installation, handling, storing, adjustment, and operation of their equipment shall be complied with and responsibility for proper performance shall continue to rest with the Contractor.

- E. The Contractor shall not have any right of appeal from the decision of the City condemning any materials furnished if the Contractor fails to obtain the approval for substitution in accordance with these provisions. If any substitutu is more costly, the Contracotr shall pay for such costs

#### 15.0 WARRANTY AND INDEMNIFICATION

- A. In addition to other guarantees or warranties required under law or other sections of the specification, the Contractor warrants all materials furnished and labor performed under this Contract to be free from defects or errors in workmanship or installation for a period of one year from the date of Completion of the work, as certified by the Project Manager. The Contractor shall indemnify the Authority for the full cost of any damage to the property that may result by reason of such defects or errors and shall indemnify the Authority from and against any and all claims, demands, losses, costs, expenses, liabilities and damages, including reasonable attorney's fees and expenses, arising out of or on account of this Contract, including but not limited to claims brought against the Authority for alleged infringement of patents based upon any methods of construction or application of materials furnished under the Contract.
- B. The Contractor shall indemnify, hold harmless and defend the City and its departments, officers, employees, servants, and agents from and against all actions, causes of actions, claims, demands, damages, costs, loss of services, expenses and compensation, including attorney's fees and interest arising out of or resulting directly or indirectly from the services rendered pursuant to this Contract, provided that any such action, cause of action, claim, demand, damage, cost, loss of service, expense, compensation (1) in any way grows out of bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, which (2) is caused in whole or in part by any act or omission of the Contractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

#### END OF SECTION

## **CITY OF NEWTON**

### **MINORITY/ WOMEN BUSINESS ENTERPRISE PLAN**

**DECEMBER 1, 1999**

#### **STATEMENT OF POLICY:**

Whereas it is the policy of the government of the United States of America, the Commonwealth of Massachusetts and the City of Newton that no person shall be discriminated against in any manner whatsoever on the grounds of race, religion, color, sex, handicap or national origin; and

Whereas, it is the policy of the government of the United States of America that no person shall, on the grounds of race, color, sex or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program of activity funded entirely or in part by the City, the State or Federal government; and

Whereas, it is the policy of the government of the United States of America to encourage that Minority/Women Business Enterprises shall have the maximum practicable opportunity to participate in Federal and State assisted projects; and all City funded contracts; and

Whereas, it is the policy of the City of Newton to encourage that minority/women business enterprises shall have the maximum practicable opportunity to participate in all City funded contracts; and

Whereas, the City of Newton, as a recipient of Federal and State funds subscribes to the above policies and will fully comply With Federal, State and local laws and directives governing non-discrimination, equal opportunity and affirmative action in all municipal activities; and

Whereas, to further enunciate the equal opportunity policy of the City of Newton's Minority/Women Business Program, the following responsibilities are specified

This MINORITY/ WOMEN Business Enterprise Plan sets forth the administrative standards for the further implementation of the City of Newton's policy of the utilization of minority contractors and subcontractors.

The City of Newton strongly affirms that it will not discriminate in any contractual procedures against any persons because of race, color, religion, age, disability, sex or national origin. This policy shall be administered with a positive supportive attitude.

It is the responsibility of the City of Newton to take affirmative steps to implement this policy to insure equality of opportunity in conducting the Program including notifying those persons and businesses doing business with the City, that contracts for goods, services and construction, shall be made Without reference or regard to race, color, sex, age, handicap, religion or national origin.

*Setti D. Warren Mayor*

**CITY OF NEWTON  
MINORITY/ WOMEN BUSINESS ENTERPRISE PLAN**

**DECEMBER 1, 1999**

**I. DEFINITIONS:**

**A. Minority Person-** the term includes a person who is of Black Hispanic, Asian, American Indian or Cape Verdean origin.

**B. Minority Business Enterprise (MBE)** -- the term shall mean a business a) that is certified by SOMWBA; or b) 1 provides evidence satisfactory to the City's Affirmative Action Officer that it is a business owned or controlled by one or more of the following:

- an individual who is a minority person,
- a partnership or joint venture controlled by minority persons in which at least 51 % of the ownership interest is held by minority persons or,
- a corporation or other entity controlled by minority persons and in which at least 51 % of the stock is owned by one or more minority persons.

**C. Contract Compliance Officer** - the Chief Procurement Officer or his/her designee responsible for the implementation of Newton's Minority/Women Enterprise Plan ("MWBE Plan") and activities.

**D. MCAD** - Massachusetts Commission Against Discrimination.

**E. SOMWBA** -- State Office of Minority/Women Business Assistance,

**F. City** - The City of Newton.

**G. Women Business Enterprise (WBE)** - the term shall mean a business a) that is certified by SOMWBA; or b) provides evidence satisfactory to the City's Affirmative Action Officer that it is a business owned or controlled by one or more of the following:

- an individual who is a woman.
- a partnership or joint venture controlled by women in which at least 51% of the ownership interest is held by women, or
- a corporation or other entity controlled by women and in which at least 51% of the stock is owned by one or more women.

**H. MWBE** – Minority or Women Business Enterprise

**II. GOALS:**

Newton's Minority/Women Enterprise Plan ("MWBE Plan") shall be guided by the goals presented below to promote minority/women opportunities within the City.

These goals comprise the framework for those activities to be implemented as part of the MWBE Plan:

To take affirmative action in expanding opportunities for minority and women owned firms in obtaining contracts within the City of Newton.

To assure that all contractors, regardless of race color, religion, creed, national origin, sex, age, ancestry or handicap, shall have equal opportunity to City contracting activities.

To award, of the total annual City contract dollars expended, 10 percent to MBE and 5 percent to WBE for construction; for goods and services, 5 percent WBE and 5 percent MBE.

### **III. SOLICITATION ACTIVITIES:**

To notify MWBEs of upcoming contracts for construction, professional services and supplies, funded in whole or in part with Federal, State, and City funds, the following activities will be undertaken. In addition on a regular basis, the City of Newton will distribute to its listing of MWBEs and SOMWBA, a summary of upcoming contract opportunities which are subject to the City's MWBE Plan.

#### **A. Construction Contracts**

All construction contracts with an estimated value over \$50,000 will be formally advertised within local, regional, minority and special interest publications at least 14 days prior to the bid opening date.

For all such construction contracts a "Notice of Solicitation" of a project going out to bid will be distributed to appropriate SOMWBA or City certified firms at least 14 days prior to the bid opening date.

#### **B. Contracts for Professional Services**

The City of Newton will send notification of its advertised Request for Proposals to appropriate! SOMWBA or City certified firms Responding MWBE firms will be considered for contract award within the bounds of generally accepted management practice or with the applicable procurement law relating to securing the lowest cost and best services available.

#### **C. Procurement of Supplies**

The City of Newton will (where feasible) utilize MWBEs for the procurement of supplies in accordance with City purchasing procedures. These efforts will be documented and reported to MCAD, and the Mayor's office on a quarterly basis.

### **IV. CONSTRUCTION ACTIVITIES:**

#### **A. Goals**

The City of Newton bid documents and contracts with an estimated value over \$50,000 will contain the City's goal of 10% for MBE and 5% for WBE utilization for subcontracts,

#### **B. Pre-Bid Conference**

To affirmatively further the opportunities available to prospective bidders, the City will hold a pre-bid conference 5-7 days prior to the bid opening date for all City construction contracts and subcontracts with an estimated value over \$50,000.

The pre-bid conference will provide an opportunity for contractors to: review and clarify the technical requirements of the projects, review the City's MWBE Plan; and review Equal Opportunity requirements. The City will advertise this conference and extend invitations to interested contractors as part of the notice of solicitation.

**C. Bid Submission**

All bids for City of Newton contracts with -an estimated value over \$50,000 shall include a certification of intent to be completed by the bidder swing his/her intent to comply with the City's MWBE Plan. Failure to include this certification shall be an informality which may be waived if such certification is received prior to the award of the contract.

**D. Contract Execution**

Upon notification of award of the contract, the bidder shall provide a written plan detailing how it will comply with the MWBE Plan

**E. Monitoring**

Throughout the duration of the contract, the City of Newton through its Contract Compliance Officer, will monitor the progress and activities of all contractors and subcontractors as they attempt to comply with the MWBE Plan.

**F. Enforcement**

In the case of clear neglect to make a good faith effort to comply with this MWBE Plan, the City of Newton reserves the right to designate contractor, after a hearing, as ineligible for future City bid awards.

**V. CONTRACT COMPLIANCE OFFICER/DUTIES AND RESPONSIBILITIES:**

The Contract Compliance Officer, as liaison between minority firms and the City of Newton will have the overall responsibility for the implementation of Newton's MWBE Plan. This responsibility includes the development, management, dissemination of information; the provision of technical assistance to minority firms including clarification of procedures to be implemented; maintenance of relevant documentation; completion of reporting requirements; and performance of monitoring and evaluation activities; and maintenance and updating of listings of minority/women business.

The Contract Compliance Officer has oversight of all City procurements for construction, professional services and supplies and shall coordinate the implementation of the MWBE Plan with other City departments.

**THE CITY OF NEWTON, MASSACHUSETTS**  
**SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY**  
**ANTI-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM**

- I. The requirements hereinafter set forth apply to construction contracts which involve an expenditure by the City of \$50,000 or more.
- II. For purposes of this contract "minority" refers to Asian Americans, Black, Hispanics American Indians and Cape Verdeans. The City refers to the- City of Newton
- III. During the performance of this contract the Contractor and all of (his) Subcontractors (hereinafter collectively referred to as the Contractor) , for himself, his assignees, and successors ,in interest, agree as follows:
  1. In connection with the performance of work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age or sex. The aforesaid provision shall include, but not be limited to, the following: layoff; termination; rates of pay or other forms of compensation; conditions or privileges of employment; and the selection of apprenticeship. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the City setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (MGL Chapter 151B) . (See Attachment A)
  2. In connection with the performance of work under this contract, the Contractor shall undertake in good faith, affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age or sex, and to eliminate and remedy any effects of such discrimination -in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal employment: opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, Layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, age or sex. A purpose of- this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future City public construction projects
- IV.
  1. As part of this obligation of remedial action under the foregoing section, the contractor shall maintain on this project a not less than 5 percent ratio of minority employee man hours to total man hours in each job category, including, but not limited to, bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers, and those "classes of work" enumerated in Section 44C of Chapter 149 of the Massachusetts General Laws.
  2. In the hiring of minority journeymen, apprentices, trainees and advanced trainees, the Contractor shall rely on referrals, from the Contractor's affirmative action program approved by the City, traditional referral methods utilized by the construction industry, and referrals from agencies, not more than three in number at any one time, designated by the Liaison Committee or the City.
- V.
  1. At the discretion of the City, there may be established for the life of this contract a body to be known as the Liaison Committee. The Liaison Committee shall be composed of the Compliance Officer and one representative each from the Departments administering this project, hereinafter called the administering Departments, and such other representatives as may be designated by the City.
  2. The Contractor (or, his/her agent, if any, designated by him/her as the onsite equal employment opportunity officer) shall recognize the Liaison Committee as the affirmative action body, and shall establish a continuing working relationship with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.
  3. The Contractor shall prepare manning tables on a quarterly basis.\* These shall be broken down into projections, by week, for workers required in each trade. Copies shall be furnished one week in advance of the initiation of work and quarterly thereafter to the City and to the Liaison Committee.
  4. Records of employment referral orders, prepared by the Contractor, shall be made available to the City and to the Liaison Committee on request.

5. The contractor shall prepare weekly reports in a form approved by the City of hours worked in each trade by each employee, identified as minority or non-minority. Copies of these reports shall be provided at the end of each week to the City and to the Liaison Committee.

\* If job is less than three months, prepare for length of job.

- VI. If the Contractor shall use any sub contractor on any work performed under this contract, he/she shall take affirmative action to negotiate with qualified minority subcontractors. This affirmative action shall cover both pre-bid and post-bid periods. It shall include notification to the State Office of: Minority *Business Assistance* or As designee, while bids are in preparation, of all products, work or services for which the Contractor intends to negotiate bids.
- VII. In the employment of journeyman, apprentices, trainees, and advanced trainees, the Contractor shall give preference to citizens of the Commonwealth who have served in the armed forces of the United States in time of war and have been honorably discharged therefrom or released from active duty therein, and who are qualified to perform the work to which the employment relates, and, secondly to citizens of the Commonwealth generally, and, if such cannot be obtained in sufficient numbers, then to citizens of the United States
- VIII. A designee of the City and a designee of the Liaison Committee shall each have the right of access to the Construction site,
- IX. **Compliance with Requirements**  
The Contractor shall comply with the provisions of Chapter 151B of the Massachusetts General Laws, which are herein incorporated by reference and made as amended by Executive Order 227, and of Chapter 151B as amended, of the Massachusetts General Laws, both of which are herein incorporated by reference and made a part of this contract.
- X. **Non-Discrimination**  
The Contractor, in the performance of all work after award, and prior to completion of the contract work, will not discriminate on the grounds of race, color, religious creed, national origin, age or sex in employment practices, in the selection or retention of sub-contractors, or in the procurement of materials and rentals of equipment.
- XI. **Solicitations for sub-Contracts and for the Procurement of Materials and Equipment**  
In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential subcontractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under his contract relative to non-discrimination and affirmative action.
- XII. **Bidders Certification Requirement**  
1. The following certification statement will be inserted in the bid document just above the bidder's signature.  
  
"The bidder hereby certifies he shall comply with the minority manpower ratio and specific action steps contained in the City of Newton, Massachusetts Supplemental Equal Employment-- Opportunity Anti-Discrimination and Affirmative Action Program. The Contractor receiving the award of the contract shall be required to obtain from each of its subcontractors and submit to the contracting or, administering agency prior to the performance of any work under said contract a certification by said subcontractor, regardless of tier, that it will comply with the minority manpower ratio and specific affirmative action steps contained in the City of Newton Massachusetts Supplemental Equal Employment Opportunity Anti -Discrimination and Affirmative Action Program.
- XIII. **Contractor's Certification**  
A Contractor's certification form must be signed by all successful low bidders prior to award by the City. A Contractor shall not be eligible for award of a contract unless the contractor has executed and submitted the Contractor's Certification, which shall be deemed a part of the resulting contract. (See Attachment B)
- XIV. **Subcontractor's Certification**

Prior to the award of any subcontract, regardless of tier, the prospective subcontractor must execute and submit to the Prime Contractor a subcontractor's certification setting forth the subcontractor's compliance with this program, which shall be deemed a part of the resulting subcontract. (See Attachment C)

**XV. Compliance - Information, Reports and Sanctions**

1. The Contractor will provide all information and reports Required by the administering department or, the City on instruction issued by either of them and will permit access to its facilities and any books, records, accounts and other sources of information which may be determined by the City to affect the employment of personnel. This provision shall apply only to information pertinent to the City's supplementary affirmative action contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the administering department or the City as appropriate and shall set forth what efforts he/she has made to obtain the information.
2. Whenever the administering department, the City, or the Liaison Committee believes the General Contractor or any Subcontractor may not, be operating in compliance with the terms of this Section, the City directly, or through its designated agent, shall conduct an appropriate investigation, and may confer with the parties, to determine if such Contractor is operating in compliance with the terms of this Section. If the City or its agent finds the General Contractor or any Subcontractor not in compliance, it shall make a preliminary report on non-compliance, and notify such Contractor in writing of such steps as will in the judgement of the City or its agent bring such Contractor into compliance. In the event that such Contractor fails or refuses to fully perform such steps, the City shall make a final report of non-compliance, and recommend to the administering department the imposition of one or more of the sanctions listed below. If, however, the City believes the General Contractor or any Subcontractor has taken or is taking every possible measure to achieve compliance, it shall not make a final report of non-compliance. within fourteen days at the receipt of the recommendations of the City, the administering department shall move to impose one or more of the following sanctions, as it may deem appropriate to attain full and effective enforcement:
  - (a) The recovery by the administering department from the General Contractor of 1/100 of 11 of the contract award price or \$1000 whichever sum is greater, in the nature of liquidated damages or if a Subcontractor is in non-compliance, the recovery by the administering department from the General Contractor, to be assessed by the General Contractor as a back charge against the Subcontractor, of 1/10 of 1% of the sub-contract price, or \$400 whichever sum is greater, in the nature of liquidated damages, for each week that such party fails or refuses to comply
  - (b) The suspension of any payment of part thereof due under the contract until such time as the General Contractor or any Subcontractor is able to demonstrate his compliance with the terms of the contract;
  - (c) The termination, or cancellation, of the contract, in whole or in part, unless the General Contractor or any Subcontractor is able to demonstrate within a specified time his/her compliance with the terms of the City's affirmative action construction contract requirements; OR,
  - (d) The denial to the General Contractor or any Subcontractor of the right to participate in any future contracts awarded by the administering department for a period of up to three years.
3. If at any time after the imposition of one or more of the above sanctions (unless the contract has been terminated), a Contractor is able to demonstrate that he/she is in compliance with this section, he/she may request the City to suspend the sanctions conditionally pending a final determination by the City as to whether the Contractor is in compliance. Upon final determination of the City, the administering department, based upon the recommendation of the City, shall either lift the sanctions or continue them.
4. Sanctions enumerated under Section XV shall not be imposed by the City except after the General Contractor or Subcontractor have had an opportunity for full and fair hearing with City. The non-compliance investigation shall be initiated without prior notice to the contractor. Any sanctions to be imposed shall be, set forth fully and completely in writing, and may then be appealed to the City in writing by the Contractor.

**XIV. Severability**

The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.

# FAIR EMPLOYMENT LAW

The Fair Employment Law declares that it is illegal to discriminate on the basis of race, color, religious creed, national origin, sex, sexual orientation, age, ancestry or disability

## IT IS UNLAWFUL:

- to print or circulate any advertisement or use any application form which directly or indirectly specifies any limitation on the basis of race, color, religious creed, national origin, sex, sexual orientation, age, ancestry or disability.
- to discharge or refuse to hire any individual on file basis of their race, color, religious creed, national origin, sex, sexual orientation, age, ancestry, or disability.
- to discriminate against any individual in matters relating to compensation, terms, conditions, or privileges of employment because of their race, color, religious creed, national origin, sex, sexual orientation, age, ancestry or disability.
- to require a woman to leave her job at some arbitrary stage in her pregnancy or to refuse to let her return to work until a specified time set by the employer.
- to grant a female employee at least eight weeks leave for purposes of childbirth or to treat her absence differently than any other absence due to disability.
- to require an employee to remain at work during any day or part thereof that s/he observes as a religious holiday provided that the employee gives a ten-day notice and the absence does not cause undue hardship to the employer.
- to discharge or refuse to hire any person because of their failure to furnish information concerning admission to a center for the treatment of mentally ill persons.
- to discriminate against a job applicant for failure to furnish information, written or oral, concerning:- A) an arrest, detention or disposition regarding a violation of law in which no conviction resulted; B) a first conviction for any of the following misdemeanors: driving under the influence, simple assault, speeding, minor traffic violations, disturbance of the peace; or C) conviction for a misdemeanor where the date of the conviction or end of period of incarceration, if any, occurred more than five years prior to the employment application, and the applicant has not been convicted of any offense within the five years immediately before the date of application.

## RETALIATION

It is illegal to retaliate against any person because s/he has opposed any practices forbidden under this Chapter or because s/he has filed a complaint, testified, or assisted in any proceeding before the Commission. It is also illegal to aid, abet, incite, compel or coerce the doings of any of the acts forbidden under this Chapter or to attempt to do so.

## SEXUAL HARASSMENT

**151B:1,18 The term "sexual harassment" shall mean sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when (a) submission to or rejection of such advances, requests or conduct is made either explicitly or implicitly a term or condition of employment, or as a basis for employment decisions: (h) such advances,, requests or conduct have the purpose or effect of unreasonably interfering with an individual's work performance by creating an intimidating, hostile, humiliating or sexually offensive work environment.**

## COMPLAINTS

All complaints must be filed in writing. Information on the filing of complaints can be obtained by contacting the MASSACHUSETTS COMMISSION AGAINST DISCRIMINATION at the following locations:

Boston office:  
One Ashburton Place  
Room 601  
Boston, MA 02108  
(617) 727-3990

Springfield office:  
436 Dwight Street  
Suite 315  
Springfield, MA 01103  
(413) 739-2145

THE MASSACHUSETTS COMMISSION AGAINST DISCRIMINATION

**Attachment B**

**CITY OF NEWTON**

**Contractors Certification**

A Contractor will not be eligible for award of a contract, unless such contractor has submitted the following certification, which is deemed a part of the resulting contract.

CONTRACTOR'S CERTIFICATION

\_\_\_\_\_  
Contractor's Name Certifies that:

it tends to use the following listed construction trades in the work under the contract

\_\_\_\_\_ and

2. will comply with the minority manpower ratio and specific affirmative action steps contained herein; and
3. will obtain from each of its subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the subcontractor certification required by these bid conditions

\_\_\_\_\_  
(Signature of authorized representative of Contractor)

Any contract for the provision of goods or services to the City of Newton or any of its departments is subject to the ordinance creating the Human Rights Commission, as it may be amended from Time to Time. Any complaints within the purview shall be forwarded immediately to the contracting agency, and a copy shall be sent to the Human Rights Commission; any complaints received by the contracting agency shall be forwarded to the contractor, and a copy shall be sent to the Human Rights Commission.

**Attachment C**

**CITY OF NEWTON**

**Subcontractors Certification**

Prior to the award of any subcontract, regardless of tier, the prospective subcontractor must execute and submit to the Prime Contractor the following certification, which will be deemed a part of the resulting subcontractor.

SUBCONTRACTOR'S CERTIFICATION

\_\_\_\_\_  
Contractor's Name Certifies that:

it tends to use the following listed construction trades in the work under the contract

\_\_\_\_\_ and

will comply with the minority manpower ration and specific affirmative action steps contained herein; and

will obtain from each of its subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the subcontractor certification required by these bid conditions

Pursuant to M.G.L. Ch. 62C, Sec. 49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

\_\_\_\_\_  
(Signature of authorized representative of Contractor)

In order to ensure that the said subcontractor's certification becomes part of all subcontracts under the prime contract, no subcontract shall be executed until an authorizee representative of the Administrative Agency administering this project has determined in writing, that the said certification has been incorporated in such subcontract, regardless of tier, Any subcontract executed without such written approval shall be void.

Any contract for the provision of goods or services to the City of Newton or any of its departments is subject to the ordinance creating the Human Rights Commission, as it may be amended from Time to Time. Any complaints within the purview shall be forwarded immediately to the contracting agency, and a copy shall be sent to the Human Rights Commission; any complaints received by the contracting agency shall be forwarded to the contractor, and a copy shall be sent to the Human Rights Commission.

**END OF SECTION**

## **CITY OF NEWTON**

### **WAGE RATE REQUIREMENTS**

#### **1. GENERAL**

- A.** This section summarizes the requirements for the payment of wages to laborers and mechanics employed under the Contract.
- B.** Other duties and requirements of law which may not be specified in this section apply and are inherently part of the Contract.

#### **2. WAGE RATES**

- A.** The rate per hour to be paid to mechanics, apprentices, teamsters, chauffeurs, and laborers employed on the Work shall not be less than the rate of wages in the attached "Minimum Wage Rates" as determined by the Commissioner of Labor and Industries. The schedule of prevailing wage rates will be updated annually for all public construction projects lasting longer than one (1) year. The contractor shall pay the prevailing wage rate set out in the applicable prevailing wage rate schedule. Increases in prevailing wage rates shall not be the basis for a change order.
- B.** Keep posted on the site a legible copy of said schedule. Keep on file the wage rates and classifications of labor employed on this Work in order that they may be available for inspection by the Owner, Administrator, or the Architect.
- C.** Apprentices employed pursuant to this determination of wage rates must be registered and approved by the State Apprenticeship Council wherever rates for journeymen or apprentices are not listed.
- D.** Pay reserve police officers employed on the Work the prevailing rate of wages paid to regular police officers as required by M.G.L. c 149, Sec. 34B, as amended. Such police officers shall be covered by Workmen's Compensation Insurance and Employers Liability Insurance by the Contractor.
- E.** The Contractor and all subcontractors shall, on a weekly basis throughout the term of the contract, provide to the City of Newton certified payroll affidavits verifying compliance with M.G.L. c.149, Sec. 27, 27A and 27B.
- F.** The Contractor and all subcontractors shall provide a Statement of Compliance within 15 days of the completion of its portion of the work. This statement shall be submitted to the Owner on the form found elsewhere in this section.
- G.** The Contractor shall maintain accurate and complete records, including payroll records, during the Contract term and for three years thereafter. Filings made by the Contractor pursuant to Clauses 47, 48 and 49 of the General Conditions shall be deemed to constitute compliance with State filing requirements under the Massachusetts Prevailing Wage Law.

#### **END OF SECTION**



DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DIVISION OF OCCUPATIONAL SAFETY

**Prevailing Wage Rates**

**As determined by the Commissioner under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H**



JOANNE F. GOLDSTEIN  
Secretary of Labor and Workforce Development

GEORGE E. NOEL  
Director of Labor

HEATHER E. ROWE  
Acting Commissioner of  
Division of Occupational Safety

**Awarding Authority:** Newton Dept. of Public Works

**Contract Number:** 11-59

**City/Town:** NEWTON

**Description of Work:** Waban Hill Reservoir Central Core Repair - Restoration and refinishing of the 90" diameter central core standpipe and associated valves and piping.

**Job Location:** 185 Waban Hill Road North

Classification	Effective Dates and Total Rates					
Construction						
(2 AXLE) DRIVER - EQUIPMENT	12/01/2010	\$45.530	06/01/2011	\$46.280	12/01/2011	\$46.940
	06/01/2012	\$47.590	12/01/2012	\$48.620		
(3 AXLE) DRIVER - EQUIPMENT	12/01/2010	\$45.600	06/01/2011	\$46.350	12/01/2011	\$47.010
	06/01/2012	\$47.660	12/01/2012	\$48.690		
(4 & 5 AXLE) DRIVER - EQUIPMENT	12/01/2010	\$45.720	06/01/2011	\$46.470	12/01/2011	\$47.130
	06/01/2012	\$47.780	12/01/2012	\$48.810		
ADS/SUBMERSIBLE PILOT	08/01/2010	\$104.640	08/01/2011	\$108.760		
AIR TRACK OPERATOR	12/01/2010	\$49.850	06/01/2011	\$50.850	12/01/2011	\$52.100
ASBESTOS REMOVER - PIPE / MECH. EQUIPT.	12/01/2009	\$40.250				
ASPHALT RAKER	12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE	12/01/2010	\$60.980				
BACKHOE/FRONT-END LOADER	12/01/2010	\$60.980				
BARCO-TYPE JUMPING TAMPER	12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600
BLOCK PAVER, RAMMER / CURB SETTER	12/01/2010	\$49.850	06/01/2011	\$50.850	12/01/2011	\$52.100
BOILER MAKER	01/01/2010	\$55.850				
APPRENTICE: BOILERMAKER - Local 29						
Ratio Step	1	2	3	4	5	6
1:5 %	65.00	65.00	70.00	75.00	80.00	85.00
						90.00
						95.00
Apprentice wages shall be no less than the following:						
Step 1 \$42.66/2 \$42.66/3 \$44.54/4 \$46.43/5 \$48.31/6 \$50.20/7 \$52.08/8 \$53.97						
BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	02/01/2011	\$70.900	03/01/2011	\$70.900	08/01/2011	\$73.000
	02/01/2012	\$73.990				
APPRENTICE: BRICK/PLASTER/CEMENT MASON - Local 3 Newton						
Ratio Step	1	2	3	4	5	
1:5 %	50.00	60.00	70.00	80.00	90.00	
Apprentice wages shall be no less than the following:						
Step 1 \$47.80/2 \$52.42/3 \$57.04/4 \$61.66/5 \$66.28						
BULLDOZER/GRADER/SCRAPER	12/01/2010	\$60.630				
CAISSON & UNDERPINNING BOTTOM MAN	12/01/2010	\$50.250	06/01/2011	\$51.250	12/01/2011	\$52.500
CAISSON & UNDERPINNING LABORER	12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350
CAISSON & UNDERPINNING TOP MAN	12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350
CARBIDE CORE DRILL OPERATOR	12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600
CARPENTER	09/01/2010	\$55.360	03/01/2011	\$56.230	09/01/2011	\$57.360
	03/01/2012	\$58.480				

This wage schedule must be posted at the work site in accordance with M.G.L. c. 149, § 27. Failure of the employer to pay "prevailing wage rates," which are the minimum wage rates listed above, on public works projects is a violation of M.G.L. c. 149, § 27. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel: 617-727-3465. Contractors with questions about the wage rates or classifications included on the wage schedules have an affirmative obligation to inquire with DOS at [www.mass.gov/dos/pw](http://www.mass.gov/dos/pw) or at 617-626-6952.

**Issue Date:** 02/22/2011

**Wage Request Number:** 20110222-026

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DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DIVISION OF OCCUPATIONAL SAFETY

**Prevailing Wage Rates**

**As determined by the Commissioner under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H**



JOANNE F. GOLDSTEIN  
Secretary of Labor and Workforce Development

GEORGE E. NOEL  
Director of Labor

HEATHER E. ROWE  
Acting Commissioner of  
Division of Occupational Safety

**Awarding Authority:** Newton Dept. of Public Works

**Contract Number:** 11-59

**City/Town:** NEWTON

**Description of Work:** Waban Hill Reservoir Central Core Repair - Restoration and refinishing of the 90" diameter central core standpipe and associated valves and piping.

**Job Location:** 185 Waban Hill Road North

Classification		Effective Dates and Total Rates									
APPRENTICE: CARPENTER - Zone 2 Eastern MA											
Ratio	Step	1	2	3	4	5	6	7	8		
1:5	%	50.00	60.00	70.00	75.00	80.00	80.00	90.00	90.00		
Apprentice wages shall be no less than the following:											
Step 1\$25.54/28.71/34.12/42.71/54.58/76.45/87.78/90.61/83.06.61											
CEMENT MASONRY/PLASTERING						02/01/2011	\$69.070	08/01/2011	\$70.770	02/01/2012	\$71.540
CHAIN SAW OPERATOR						12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES						12/01/2010	\$61.980				
COMPRESSOR OPERATOR						12/01/2010	\$49.690				
DELEADER (BRIDGE)						01/01/2011	\$64.410	07/01/2011	\$65.410	01/01/2012	\$66.410
						07/01/2012	\$67.410	01/01/2013	\$68.410		
APPRENTICE: PAINTER Local 35 - BRIDGES/TANKS											
Ratio	Step	1	2	3	4	5	6	7	8		
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00		
Apprentice wages shall be no less than the following:											
Step 1\$29.31/23.86/33.91/44.16/55.11/66.53/77.55/81.83/60.11											
DEMO: ADZEMAN						12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350
DEMO: BACKHOE/LOADER/HAMMER OPERATOR						12/01/2010	\$50.100	06/01/2011	\$51.100	12/01/2011	\$52.350
APPRENTICE: LABORER Demo Backhoe/Loader/Hammer Operator											
Ratio	Step	1	2	3	4						
1:5	%	60.00	70.00	80.00	90.00						
Apprentice wages shall be no less than the following:											
Step 1\$37.48/24.40/64/34.79/44.69.5											
DEMO: BURNERS						12/01/2010	\$49.850	06/01/2011	\$50.850	12/01/2011	\$52.100
APPRENTICE: LABORER Demo Burners											
Ratio	Step	1	2	3	4						
1:5	%	60.00	70.00	80.00	90.00						
Apprentice Wages shall be no less than the following:											
Step 1\$37.33/24.40/46/34.59/44.6.72											
DEMO: CONCRETE CUTTER/SAWYER						12/01/2010	\$50.100	06/01/2011	\$51.100	12/01/2011	\$52.350
DEMO: JACKHAMMER OPERATOR						12/01/2010	\$49.850	06/01/2011	\$50.850	12/01/2011	\$52.100
DEMO: WRECKING LABORER						12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350
APPRENTICE: LABORER Demo Wrecking Laborer											
Ratio	Step	1	2	3	4						
1:5	%	60.00	70.00	80.00	90.00						
Apprentice wages shall be no less than the following:											
Step 1\$36.88/23.94/34.99/44.6.05											
DIRECTIONAL DRILL MACHINE OPERATOR						12/01/2010	\$60.630				
DIVER						08/01/2010	\$77.440	08/01/2011	\$80.190		

This wage schedule must be posted at the work site in accordance with M.G.L. c. 149, § 27. Failure of the employer to pay "prevailing wage rates," which are the minimum wage rates listed above, on public works projects is a violation of M.G.L. c. 149, § 27. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel: 617-727-3465. Contractors with questions about the wage rates or classifications included on the wage schedules have an affirmative obligation to inquire with DOS at [www.mass.gov/dos/pw](http://www.mass.gov/dos/pw) or at 617-626-6952.

**Issue Date:** 02/22/2011

**Wage Request Number:** 20110222-026

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DEVALL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DIVISION OF OCCUPATIONAL SAFETY

**Prevailing Wage Rates**

**As determined by the Commissioner under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H**



JOANNE F. GOLDSTEIN  
Secretary of Labor and Workforce Development

GEORGE E. NOEL  
Director of Labor

HEATHER E. ROWE  
Acting Commissioner of  
Division of Occupational Safety

**Awarding Authority:** Newton Dept. of Public Works

**Contract Number:** 11-59

**City/Town:** NEWTON

**Description of Work:** Waban Hill Reservoir Central Core Repair - Restoration and refinishing of the 90" diameter central core standpipe and associated valves and piping.

**Job Location:** 185 Waban Hill Road North

Classification		Effective Dates and Total Rates									
DIVER TENDER		08/01/2010	\$62.570	08/01/2011	\$65.320						
DIVER TENDER (EFFLUENT)		08/01/2010	\$82.330	08/01/2011	\$86.460						
DIVER/SLURRY (EFFLUENT)		08/01/2010	\$104.640	08/01/2011	\$108.760						
ELECTRICIAN		09/01/2010	\$67.040	03/01/2011	\$68.290						
APPRENTICE: ELECTRICIAN - Local 103											
Ratio	Step	1	2	3	4	5	6	7	8	9	10
2:3***	%	40.00	40.00	45.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00
Apprentice wages shall be no less than the following Steps:						App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80					
1\$36.13/2\$36.13/3\$43.56/4\$43.56/5\$45.70/6\$47.83/7\$49.97/8\$52.10/9\$54.24/10\$56.37											
ELEVATOR CONSTRUCTOR		01/01/2011	\$66.690	01/01/2012	\$68.190						
APPRENTICE: ELEVATOR CONSTRUCTOR - Local 4											
Ratio	Step	1	2	3	4	5					
1:1	%	50.00	55.00	65.00	70.00	80.00					
Apprentice rates shall be no less than the following:						Steps 1-2 are 6 mos.; Steps 3-5 are 1 year					
Step 1\$34.26/2\$43.76/3\$48.86/4\$51.41/5\$56.50											
ELEVATOR CONSTRUCTOR HELPER		01/01/2011	\$52.830	01/01/2012	\$54.330						
FENCE & GUARD RAIL ERECTOR		12/01/2010	\$49.350	06/01/2011	\$50.350				12/01/2011	\$51.600	
FIELD ENG. - INST. PERSON (BLDG, SITE, HVY CONST)		11/01/2010	\$58.140	05/01/2011	\$59.380						
FIELD ENG. - ROD PERSON (BLDG, SITE, HVY CONST)		11/01/2010	\$42.200	05/01/2011	\$42.930						
FIELD ENG. -CHIEF OF PARTY (BLDG, SITE, HVY CONST)		11/01/2010	\$59.520	05/01/2011	\$60.770						
FIRE ALARM INSTALLER		09/01/2010	\$67.040	03/01/2011	\$68.290						
FIRE ALARM REPAIR / MAINTENANCE		09/01/2010	\$55.050	03/01/2011	\$56.300						
FIREMAN (ASST. ENGINEER)		12/01/2010	\$54.840								
FLAGGER & SIGNALER		12/01/2010	\$38.050	06/01/2011	\$39.050				12/01/2011	\$39.050	
FLOORCOVERER		09/01/2010	\$60.380	03/01/2011	\$61.130				09/01/2011	\$62.380	
		03/01/2012	\$63.630								
APPRENTICE: FLOORCOVERER - Local 2168 Zone I											
Ratio	Step	1	2	3	4	5	6	7	8		
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00		
Apprentice rates shall be no less than the following:						Steps are 750 hrs.					
Step 1\$27.91/2\$29.72/3\$40.18/4\$42.00/5\$45.70/6\$47.52/7\$51.22/8\$53.04											
FORK LIFT/CHERRY PICKER		12/01/2010	\$60.980								
GENERATOR/LIGHTING PLANT/HEATERS		12/01/2010	\$49.690								
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)		01/01/2011	\$53.910	07/01/2011	\$54.910				01/01/2012	\$55.910	
		07/01/2012	\$56.910	01/01/2013	\$57.910						

This wage schedule must be posted at the work site in accordance with M.G.L. c. 149, § 27. Failure of the employer to pay "prevailing wage rates," which are the minimum wage rates listed above, on public works projects is a violation of M.G.L. c. 149, § 27. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel: 617-727-3465. Contractors with questions about the wage rates or classifications included on the wage schedules have an affirmative obligation to inquire with DOS at [www.mass.gov/dos/pw](http://www.mass.gov/dos/pw) or at 617-626-6952.

**Issue Date:** 02/22/2011

**Wage Request Number:** 20110222-026

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DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DIVISION OF OCCUPATIONAL SAFETY

**Prevailing Wage Rates**

**As determined by the Commissioner under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H**



JOANNE F. GOLDSTEIN  
Secretary of Labor and Workforce Development

GEORGE E. NOEL  
Director of Labor

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**Awarding Authority:** Newton Dept. of Public Works

**Contract Number:** 11-59

**City/Town:** NEWTON

**Description of Work:** Waban Hill Reservoir Central Core Repair - Restoration and refinishing of the 90" diameter central core standpipe and associated valves and piping.

**Job Location:** 185 Waban Hill Road North

Classification	Effective Dates and Total Rates									
APPRENTICE: GLAZIER - Local 35 Zone 2										
Ratio	Step	1	2	3	4	5	6	7	8	
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00	
Apprentice wages shall be no less than the following:					Steps are 750 hrs.					
Step 1\$24.06/2\$31.08/3\$32.71/4\$34.33/5\$44.16/6\$45.78/7\$47.41/8\$50.66										
HOISTING ENGINEER/Cranes/GRADALLS					12/01/2010	\$60.980				
APPRENTICE: HOIST/PORT. ENG. - Local 4										
Ratio	Step	1	2	3	4	5	6	7	8	
1:6	%	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	
Apprentice wages shall be no less than the following:										
Step 1\$31.33/2\$45.47/3\$47.41/4\$49.35/5\$51.29/6\$53.22/7\$55.16/8\$57.10										
HVAC (DUCTWORK)					02/01/2011	\$65.170	08/01/2011	\$66.420	02/01/2012	\$67.670
					08/01/2012	\$68.920	02/01/2013	\$70.170		
HVAC (ELECTRICAL CONTROLS)					09/01/2010	\$67.040	03/01/2011	\$68.290		
HVAC (TESTING AND BALANCING - AIR)					02/01/2011	\$65.170	08/01/2011	\$66.420	02/01/2012	\$67.670
					08/01/2012	\$68.920	02/01/2013	\$70.170		
HVAC (TESTING AND BALANCING - WATER)					09/01/2010	\$68.730				
HVAC MECHANIC					09/01/2010	\$68.730				
HYDRAULIC DRILLS					12/01/2010	\$49.850	06/01/2011	\$50.850	12/01/2011	\$52.100
INSULATOR (PIPES & TANKS)					09/01/2010	\$61.660				
APPRENTICE: ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Boston										
Ratio	Step	1	2	3	4					
1:4	%	50.00	60.00	70.00	80.00					
Apprentice wages shall be no less than the following:					Steps are 1 year					
Step 1\$37.34/2\$42.20/3\$47.07/4\$51.93										
IRONWORKER/WELDER					03/16/2010	\$60.940				
APPRENTICE: IRONWORKER - Local 7 Boston										
Ratio	Step	1	2	3	4	5	6			
**	%	60.00	70.00	75.00	80.00	85.00	90.00			
Apprentice wages shall be no less than the following:					** Structural 1:6; Ornamental 1:4					
Step 1\$46.82/2\$50.35/3\$52.12/4\$53.88/5\$55.65/6\$57.41										
JACKHAMMER & PAVING BREAKER OPERATOR					12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600
LABORER					12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350
APPRENTICE: LABORER - Zone 1										
Ratio	Step	1	2	3	4					
1:5	%	60.00	70.00	80.00	90.00					
Apprentice wages shall be no less than the following:										
Step 1\$36.88/2\$39.94/3\$42.99/4\$46.05										
LABORER: CARPENTER TENDER					12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350

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**Contract Number:** 11-59

**City/Town:** NEWTON

**Description of Work:** Waban Hill Reservoir Central Core Repair - Restoration and refinishing of the 90" diameter central core standpipe and associated valves and piping.

**Job Location:** 185 Waban Hill Road North

Classification	Effective Dates and Total Rates								
LABORER: CEMENT FINISHER TENDER	12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350			
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350			
LABORER: MASON TENDER	12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600			
LABORER: MULTI-TRADE TENDER	12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350			
LABORER: TREE REMOVER	12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350			
This classification applies to the wholesale removal of standing trees including all associated trimming of branches and limbs, and applies to the removal of branches at locations not on or around utility lines.									
LASER BEAM OPERATOR	12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600			
MARBLE & TILE FINISHERS	02/01/2011	\$59.270	03/01/2011	\$59.270	08/01/2011	\$60.950			
	02/01/2012	\$61.740							
APPRENTICE: MARBLE & TILE FINISHER - Local 3 Marble & Tile									
Ratio	Step	1	2	3	4	5			
1:3	%	50.00	60.00	70.00	80.00	90.00			
Apprentice wages shall be no less than the following:			Steps are 800 hrs.						
Step 1\$41.58/2\$45.11/3\$48.65/4\$52.19/5\$55.73									
MARBLE MASONS, TILELAYERS & TERRAZZO MECH	02/01/2011	\$70.940	03/01/2011	\$70.940	08/01/2011	\$73.040			
	02/01/2012	\$74.030							
APPRENTICE: MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile									
Ratio	Step	1	2	3	4	5			
1:3	%	50.00	60.00	70.00	80.00	90.00			
Apprentice wages shall be no less than the following:									
Step 1\$47.82/2\$52.44/3\$57.07/4\$61.69/5\$66.32									
MECH. SWEEPER OPERATOR (NON-CONSTRUCTION)	07/01/2010	\$29.590	07/01/2011	\$30.290					
MECH. SWEEPER OPERATOR (ON CONST. SITES)	12/01/2010	\$60.630							
MECHANICS MAINTENANCE	12/01/2010	\$60.630							
MILLWRIGHT (Zone 1)	04/01/2010	\$55.850							
APPRENTICE: MILLWRIGHT - Local 1121 Zone 1									
Ratio	Step	1	2	3	4	5	6	7	8
1:5	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00
Apprentice wages shall be no less than the following:									
Step 1\$25.95/2\$27.63/3\$37.99/4\$39.67/5\$42.83/6\$44.51/7\$47.67/8\$49.34									
MORTAR MIXER	12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600			
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	12/01/2010	\$43.170							
OILER (TRUCK CRANES, GRADALLS)	12/01/2010	\$46.330							
OTHER POWER DRIVEN EQUIPMENT - CLASS II	12/01/2010	\$60.630							
PAINTER (BRIDGES/TANKS)	01/01/2011	\$64.410	07/01/2011	\$65.410	01/01/2012	\$66.410			
	07/01/2012	\$67.410	01/01/2013	\$68.410					

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**Contract Number:** 11-59

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**Description of Work:** Waban Hill Reservoir Central Core Repair - Restoration and refinishing of the 90" diameter central core standpipe and associated valves and piping.

**Job Location:** 185 Waban Hill Road North

Classification		Effective Dates and Total Rates									
APPRENTICE: PAINTER Local 35 - BRIDGES/TANKS											
Ratio	Step	1	2	3	4	5	6	7	8		
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00		
Apprentice wages shall be no less than the following:						Steps are 750 hrs.					
Step 1 \$29.31/23.36.86/33.91/44.16/55.11/66.53.66/77.55.81/88.60.11											
PAINTER (SPRAY OR SANDBLAST, NEW) *						01/01/2011	\$55.310	07/01/2011	\$56.310	01/01/2012	\$57.310
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.						07/01/2012	\$58.310	01/01/2013	\$59.310		
APPRENTICE: PAINTER Local 35 Zone 2 - Spray/Sandblast - New											
Ratio	Step	1	2	3	4	5	6	7	8		
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00		
Apprentice wages shall be no less than the following:						Steps are 750 hrs.					
Step 1 \$24.76/23.18.5/33.33.55/43.5.24/54.14/64.6.83/74.48.53/85.1.92											
PAINTER (SPRAY OR SANDBLAST, REPAINT)						01/01/2011	\$53.370	07/01/2011	\$54.370	01/01/2012	\$55.370
						07/01/2012	\$56.370	01/01/2013	\$57.370		
APPRENTICE: PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint											
Ratio	Step	1	2	3	4	5	6	7	8		
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00		
Apprentice wages shall be no less than the following:						Steps are 750 hrs.					
Step 1 \$23.79/23.30.78/33.32.38/43.3.98/54.3.78/64.5.38/74.46.98/85.0.17											
PAINTER (TRAFFIC MARKING)						12/01/2010	\$49.100	06/01/2011	\$50.100	12/01/2011	\$51.350
PAINTER / TAPER (BRUSH, NEW) *						01/01/2011	\$53.910	07/01/2011	\$54.910	01/01/2012	\$55.910
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.						07/01/2012	\$56.910	01/01/2013	\$57.910		
APPRENTICE: PAINTER - Local 35 Zone 2 - BRUSH NEW											
Ratio	Step	1	2	3	4	5	6	7	8		
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00		
Apprentice wages shall be no less than the following:						Steps are 750 hrs.					
Step 1 \$24.06/23.1.08/33.2.71/43.4.33/54.4.16/64.5.78/74.47.41/85.0.66											
PAINTER / TAPER (BRUSH, REPAINT)						01/01/2011	\$51.970	07/01/2011	\$52.970	01/01/2012	\$53.970
						07/01/2012	\$54.970	01/01/2013	\$55.970		
APPRENTICE: PAINTER Local 35 Zone 2 - BRUSH REPAINT											
Ratio	Step	1	2	3	4	5	6	7	8		
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00		
Apprentice wages shall be no less than the following:						Steps are 750 hrs.					
Step 1 \$23.09/23.30.01/33.1.54/43.3.07/54.2.80/64.4.33/74.5.86/85.0.91											
PANEL & PICKUP TRUCKS DRIVER						12/01/2010	\$45.360	06/01/2011	\$46.110	12/01/2011	\$46.770
						06/01/2012	\$47.420	12/01/2012	\$48.450		
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)						08/01/2010	\$62.570	08/01/2011	\$65.320		
PILE DRIVER						08/01/2010	\$62.570	08/01/2011	\$65.320		

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**Job Location:** 185 Waban Hill Road North

Classification		Effective Dates and Total Rates									
APPRENTICE: PILE DRIVER - Local 56 Zone 1											
Ratio	Step	1	2	3	4	5	6	7	8		
1:3	%	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00		
Apprentice wages shall be no less than the following:											
Step 1\$46.76/2\$48.74/3\$50.71/4\$52.69/5\$54.67/6\$56.64/7\$58.62/8\$60.59											
PIPEFITTER & STEAMFITTER						09/01/2010	\$68.730				
APPRENTICE: PIPEFITTER - Local 537											
Ratio	Step	1	2	3	4	5					
**	%	40.00	45.00	60.00	70.00	80.00					
Apprentice Rates-Step1\$33.44/2\$43.38/3\$50.29/4\$54.90/5\$59.51						** 1 3; 3:15; 1:10 thereafter / Steps are 1 yr.					
Refrig/AC Mechanic **1:1; 2:2; 4:3; 6:4; 8:5; 10:6; 12:7; 14:8; 17:9; 20:10; 23(Max)											
PIPELAYER						12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600
PLUMBERS & GASFITTERS						09/01/2010	\$67.500	03/01/2011	\$67.500	09/01/2011	\$68.250
						03/01/2012	\$69.050	09/01/2012	\$70.300	03/01/2013	\$71.550
APPRENTICE: PLUMBER - Local 12											
Ratio	Step	1	2	3	4	5					
**	%	35.00	40.00	55.00	65.00	75.00					
Apprentice wages shall be no less than the following:						** 1 2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr					
Step 1\$30.01/2\$32.89/3\$41.54/4\$47.31/4w/lie\$50.20 /5\$53.09 /5w/lie\$55.98											
PNEUMATIC CONTROLS (TEMP.)						09/01/2010	\$68.730				
PNEUMATIC DRILL/TOOL OPERATOR						12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600
POWDERMAN & BLASTER						12/01/2010	\$50.100	06/01/2011	\$51.100	12/01/2011	\$52.350
POWER SHOVEL/DERRICK/TRENCHING MACHINE						12/01/2010	\$60.980				
PUMP OPERATOR (CONCRETE)						12/01/2010	\$60.980				
PUMP OPERATOR (DEWATERING, OTHER)						12/01/2010	\$49.690				
READY-MIX CONCRETE DRIVER						05/01/2010	\$41.080	05/01/2011	\$41.690		
RECLAIMERS						12/01/2010	\$60.630				
RESIDENTIAL WOOD FRAME CARPENTER **						04/01/2009	\$35.620				
** The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories including the basement.											
As of 9/1/09 Carpentry work on wood-frame residential WEATHERIZATION projects shall be paid the RESIDENTIAL WOOD FRAME CARPENTER rate.											
APPRENTICE: CARPENTER (Residential Wood Frame) - Zone 2											
Ratio	Step	1	2	3	4	5	6	7	8		
1:5	%	60.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00		
Apprentice wages shall be no less than the following:											
Step 1\$20.13/2\$26.04/3\$27.23/4\$28.43/5\$29.63/6\$30.83/7\$32.03/8\$33.22											
RIDE-ON/MOTORIZED BUGGY OPERATOR						12/01/2010	\$49.350	06/01/2011	\$50.350	12/01/2011	\$51.600
ROLLER/SPREADER/MULCHING MACHINE						12/01/2010	\$60.630				

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**Issue Date:** 02/22/2011

**Wage Request Number:** 20110222-026

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DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DIVISION OF OCCUPATIONAL SAFETY

**Prevailing Wage Rates**

**As determined by the Commissioner under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H**



JOANNE F. GOLDSTEIN  
Secretary of Labor and Workforce Development

GEORGE E. NOEL  
Director of Labor

HEATHER E. ROWE  
Acting Commissioner of  
Division of Occupational Safety

**Awarding Authority:** Newton Dept. of Public Works

**Contract Number:** 11-59

**City/Town:** NEWTON

**Description of Work:** Waban Hill Reservoir Central Core Repair - Restoration and refinishing of the 90" diameter central core standpipe and associated valves and piping.

**Job Location:** 185 Waban Hill Road North

Classification		Effective Dates and Total Rates									
ROOFER (Inc.Roofing Waterproofing &Roofing Damproofing)		02/01/2011	\$54.860	08/01/2011	\$55.860	02/01/2012	\$56.860				
		08/01/2012	\$57.860	02/01/2013	\$58.860						
APPRENTICE: ROOFER - Local 33											
Ratio	Step	1	2	3	4	5					
**	%	50.00	60.00	65.00	75.00	85.00					
** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1						Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.					
Apprentice rates no less than: Step 1\$30.41/2\$40.64/3\$42.41/4\$45.97/5\$49.53											
ROOFER SLATE / TILE / PRECAST CONCRETE		02/01/2011	\$55.110	08/01/2011	\$56.110	02/01/2012	\$57.110				
		08/01/2012	\$58.110	02/01/2013	\$59.110						
APPRENTICE: ROOFER (Slate/Tile/Precast Concrete) - Local 33											
Ratio	Step	1	2	3	4	5					
**	%	50.00	60.00	65.00	75.00	85.00					
Apprentices wages shall be paid no less than the following:											
Step 1\$30.54/2\$40.79/3\$42.58/4\$46.16/5\$49.74											
SHEETMETAL WORKER		02/01/2011	\$65.170	08/01/2011	\$66.420	02/01/2012	\$67.670				
		08/01/2012	\$68.920	02/01/2013	\$70.170						
APPRENTICE: SHEET METAL WORKER - Local 17-A											
Ratio	Step	1	2	3	4	5	6	7			
1:4	%	40.00	45.00	50.00	60.00	65.00	75.00	85.00			
Apprentice wages shall be no less than the following:						Steps 1-3 are 1 year; Steps 4-7 are 6 mos.					
Step 1\$28.86/2\$34.49/3\$37.38/4\$42.38/5\$45.01/6\$50.27/7\$55.03											
SIGNERECTOR		06/01/2009	\$37.780								
APPRENTICE: SIGN ERECTOR - Local 35 Zone 2											
Ratio	Step	1	2	3	4	5	6	7	8	9	
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	
Apprentice wages shall be no less than the following:						Steps are 4 mos.					
Step 1\$19.48/2\$23.12/3\$24.36/4\$25.60/5\$30.34/6\$31.58/7\$32.82/8\$34.06/9\$35.30											
SPECIALIZED EARTH MOVING EQUIP < 35 TONS		12/01/2010	\$45.820	06/01/2011	\$46.570	12/01/2011	\$47.230				
		06/01/2012	\$47.880	12/01/2012	\$48.910						
SPECIALIZED EARTH MOVING EQUIP > 35 TONS		12/01/2010	\$46.110	06/01/2011	\$46.860	12/01/2011	\$47.520				
		06/01/2012	\$48.170	12/01/2012	\$49.200						
SPRINKLER FITTER		01/01/2011	\$70.550	09/01/2011	\$71.350	01/01/2012	\$71.500				
		03/01/2012	\$72.250	09/01/2012	\$73.250	01/01/2013	\$73.400				
		03/01/2013	\$74.400								
APPRENTICE: SPRINKLER FITTER - Local 550											
Ratio	Step	1	2	3	4	5	6	7	8	9	10
1:1	%	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00
Apprentice wages shall be no less than the following steps:											
1\$36.20/2\$38.75/3\$41.30/4\$43.85/5\$46.40/6\$48.95/7\$51.50/8\$54.05/9\$56.60/10\$59.15											

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**Description of Work:** Waban Hill Reservoir Central Core Repair - Restoration and refinishing of the 90" diameter central core standpipe and associated valves and piping.

**Job Location:** 185 Waban Hill Road North

Classification		Effective Dates and Total Rates								
STEAM BOILER OPERATOR		12/01/2010		\$60.630						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN		12/01/2010		\$60.630						
TELECOMMUNICATION TECHNICIAN		09/01/2010		\$55.050		03/01/2011		\$56.300		
APPRENTICE: TELECOMMUNICATION TECHNICIAN - Local 103										
Ratio	Step	1	2	3	4	5	6	7	8	
1:1	%	40.00	45.00	50.00	55.00	60.00	65.00	75.00	80.00	
Apprentice wages shall be no less than the following:										
Step 1\$35.84/2\$37.44/3\$39.05/4\$40.64/5\$42.24/6\$43.85/7\$47.05/8\$48.65										
TERRAZZO FINISHERS		02/01/2011		\$69.840		03/01/2011		\$69.840		08/01/2011 \$71.940
		02/01/2012		\$72.930						
APPRENTICE: TERRAZZO FINISHER - Local 3 Marble & Tile										
Ratio	Step	1	2	3	4	5				
1:3	%	50.00	60.00	70.00	80.00	90.00				
Apprentice wages shall be no less than the following:						Steps are 800 hrs.				
Step 1\$47.27/2\$51.78/3\$56.30/4\$60.81/5\$65.33										
TEST BORING DRILLER		12/01/2010		\$50.500		06/01/2011		\$51.500		12/01/2011 \$52.750
TEST BORING DRILLER HELPER		12/01/2010		\$49.220		06/01/2011		\$50.220		12/01/2011 \$51.470
TEST BORING LABORER		12/01/2010		\$49.100		06/01/2011		\$50.100		12/01/2011 \$51.350
TRACTORS/PORTABLE STEAM GENERATORS		12/01/2010		\$60.630						
TRAILERS FOR EARTH MOVING EQUIPMENT		12/01/2010		\$46.400		06/01/2011		\$47.150		12/01/2011 \$47.810
		06/01/2012		\$48.460		12/01/2012		\$49.490		
TUNNEL WORK - COMPRESSED AIR		12/01/2010		\$61.680		06/01/2011		\$62.930		12/01/2011 \$64.180
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)		12/01/2010		\$63.680		06/01/2011		\$64.930		12/01/2011 \$66.180
TUNNEL WORK - FREE AIR		12/01/2010		\$53.750		06/01/2011		\$55.000		12/01/2011 \$56.250
TUNNEL WORK - FREE AIR (HAZ. WASTE)		12/01/2010		\$55.750		06/01/2011		\$57.000		12/01/2011 \$58.250
VAC-HAUL		12/01/2010		\$45.820		06/01/2011		\$46.570		12/01/2011 \$47.230
		06/01/2012		\$47.880		12/01/2012		\$48.910		
WAGON DRILL OPERATOR		12/01/2010		\$49.350		06/01/2011		\$50.350		12/01/2011 \$51.600
WASTE WATER PUMP OPERATOR		12/01/2010		\$60.980						
WATER METER INSTALLER		09/01/2010		\$67.500		03/01/2011		\$67.500		09/01/2011 \$68.250
		03/01/2012		\$69.050		09/01/2012		\$70.300		03/01/2013 \$71.550

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**Job Location:** 185 Waban Hill Road North

**Classification**

**Effective Dates and Total Rates**

Additional Apprenticeship Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, Section 11.

All steps are six months (1000 hours) unless otherwise specified.

- \* Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof.
- \*\* Multiple ratios are listed in the comment field.
- \*\*\* The job site ratio of 2 apprentices (APP) for every 3 journeymen (JM) is allowed as follows:  
1 JM: 1 APP; 2-3 JM: 2 APP; 4-6 JM: 4 APP; 7-9 JM: 6 APP; 10-12 JM: 8 APP; 13-15 JM: 10 APP; etc.
- \*\*\*\* The job site ratio of 2 apprentices (APP) for every 3 journeymen (JM) is allowed as follows:  
1-2 JM: 1 APP; 3-4 JM: 2 APP; 5 JM: 3 APP; 6-7 JM: 4 APP; 8 JM: 5 APP; etc.

This wage schedule must be posted at the work site in accordance with M.G.L. c. 149, § 27. Failure of the employer to pay "prevailing wage rates," which are the minimum wage rates listed above, on public works projects is a violation of M.G.L. c. 149, § 27. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel: 617-727-3465. Contractors with questions about the wage rates or classifications included on the wage schedules have an affirmative obligation to inquire with DOS at [www.mass.gov/dos/pw](http://www.mass.gov/dos/pw) or at 617-626-6952.

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# **The Massachusetts Prevailing Wage Law**

## **M.G.L. ch. 149, §§ 26 – 27**

### **NOTICE TO AWARDING AUTHORITIES**

- 'The enclosed wage schedule applies only to the specific project listed at the top and will remain in effect for the duration of the project.
- 'You should request an updated wage schedule from the Division of Occupational Safety if you have not opened bids or selected a contractor within 90 days of the date of issuance of the enclosed wage schedule.
- 'The wage schedule shall be incorporated in any advertisement or call for bids for the project for which it has been issued.
- 'Once a contractor has been selected by the awarding authority, the wage schedule shall be made a part of the contract for that project.

### **NOTICE TO CONTRACTORS**

- The enclosed wage schedule must be posted in a conspicuous place at the work site during the life of the project.
- The wages listed on the enclosed wage schedule must be paid to employees on public works projects regardless of whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- The enclosed wage schedule applies to all phases of the project including the final clean-up. Contractors whose only role is to perform final clean-up must pay their employees according to this wage schedule.
- All apprentices must be registered with the Massachusetts Division of Apprentice Training in order to be paid at the reduced apprentice rates. If a worker is not registered with the Division of Apprentice Training, they must be paid the “total rate” listed on the wage schedule regardless of experience or skill level. For further information, please call (617) 727-3486 or write to the Division of Apprentice Training, 399 Washington Street, 4th Floor, Boston, MA 02108

## WEEKLY PAYROLL RECORDS REPORT & STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit a copy of there weekly payroll records to the awarding authority. This is required to be done on a weekly basis. Once collected, the awarding authority is also required to preserve those records for three years.

In addition, each such contractor, subcontractor or public body shall furnish to the Department of Labor & Workforce Development/Division of Occupational Safety within fifteen days after completion of its portion of the work a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

### STATEMENT OF COMPLIANCE

\_\_\_\_\_, 20\_\_\_\_\_

I, \_\_\_\_\_,

(Name of signatory party) (Title)

do hereby state:

That I pay or supervise the payment of the persons employed by

\_\_\_\_\_ on the \_\_\_\_\_

(Contractor, subcontractor or public body)

(Building or project)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws.

Signature \_\_\_\_\_

Title \_\_\_\_\_

DIVISION OF OCCUPATIONAL SAFETY, 399 WASHINGTON STREET, 5TH FL., BOSTON, MA. 02108

Company Name:	Prime Contractor
Project Name:	Subcontractor
Awarding Auth.:	List Prime Contractor:
Work Week Ending:	Employer Signature:
	Print Name & Title:

[illegible]

NOTE: Every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority.

**END OF SECTION**

# Technical Specifications

## TABLE OF CONTENTS

### SPECIFICATIONS

#### DIVISION 1 – GENERAL REQUIREMENTS

- 01010 - Summary of Work
- 01025 - Measurement and Payment
- 01030 - Special Provisions
- 01040 - Contract Coordination
- 01067 - Permits
- 01200 - Project Meetings
- 01210 - Preconstruction Conference
- 01300 - Submittals and Substitutions
- 01310 - Progress Schedules
- 01340 - Shop Drawings, Product Data and Samples
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- 01400 - Quality Control
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- 01630 - Product Options and Substitutions
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#### DIVISION 6 – WOODS AND PLASTICS

- 06650 – Solid Polymer Fabrications (Central Core Standpipe FRP Cover)

#### DIVISION 9 - FINISHES

- 09872 – Painting Steel Tank
- 09900 – Painting (Interior Piping)

#### APPENDIX

- A - Figures
- B - Inspection Report

Must be obtained online at [www.ci.newton.ma.us/bids](http://www.ci.newton.ma.us/bids)

SECTION 01010  
SUMMARY OF WORK

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Description of Work.
- B. Contract type.
- C. Work sequence.
- D. Use of premises.

1.02 DESCRIPTION OF WORK

- A. Work of this Contract comprises the shutdown of three of the four cells at the Waban Hill Reservoir and rehabilitation of the existing 90-inch diameter central core standpipe. City personnel shall be responsible for operating all valve openings and closures. Please see Figure Nos. 1 and 2 in Appendix A. Work also includes sandblasting and refinishing of the existing 24-inch and 12-inch diameter piping and valves within the central core chamber.

1.03 CONTRACT TYPE

- A. Construct the Work under a lump sum contract.

1.04 WORK SEQUENCE

- A. Construct Work to complete project in an expeditious manner. Coordinate Progress Schedule and performance with OWNER during construction.

1.05 USE OF PREMISES

- A. CONTRACTOR shall limit use of premises for work, for storage, and for access, to allow:
  - 1. OWNER occupancy on OWNER'S property.
  - 2. Normal public use of public property, rights-of-way, etc.
  - 3. Access to private property.
- B. Coordinate use of premises under direction of ENGINEER.
- C. Assume full responsibility for protection and safekeeping of products under this Contract.
- D. Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

PART 2 PRODUCTS  
Not Used

PART 3 EXECUTION  
Not used

END OF SECTION

## SECTION 01025

### MEASUREMENT AND PAYMENT

#### PART 1 GENERAL

##### 1.01 PROCEDURES

- A. For lump sum items, the CONTRACTOR shall be paid in accordance with the progress schedule and schedule of values on the basis of actual work accepted until the work item is completed. Upon completion of the item, 100% of the lump sum price may be paid, less retained amounts.
- B. All units of measurement shall be standard United States convention as applied to the individual items of work as specified and as interpreted by the ENGINEER.
- C. At the end of each day's work, the CONTRACTOR'S superintendent or other authorized representative of the CONTRACTOR may meet with the Resident Project Representative and determine the quantities of unit price and/or lump sum price work accomplished and/or completed during the work day.
- D. Once each month the CONTRACTOR will prepare and sign an Application for Payment, and submit the original and five (5) copies for review and signature of the Resident Project Representative and the ENGINEER'S Construction Project Manager. These completed forms will provide the basis upon which payment will be made to the CONTRACTOR.

##### 1.02 SCOPE OF PAYMENT

- A. Payments to the CONTRACTOR will be made for the actual quantities of the contract unit price items performed and accepted in accordance with the Contract Documents. Upon completion of construction, if these actual quantities show either an increase or decrease from the quantities given in the Bid, the contract unit prices will still prevail, except as provided in the General Conditions, Supplementary Conditions or Special Conditions.
- B. No payment of any Application for Payment or of any retained percentage shall relieve the CONTRACTOR of his obligation to repair or replace any defective parts of the construction or to be responsible for all damage due to such defects during the construction period or the one-year correction period.

##### 1.03 PARTIAL PAYMENTS

- A. Partial payments shall be made monthly as the work progresses. All partial invoices and payments shall be subject to correction in the final Application for Payment.

##### 1.04 PAYMENT FOR MATERIAL DELIVERED

- A. When requested by the CONTRACTOR, and at the discretion of the OWNER, payment may be made for all or part of the value of acceptable, non-perishable materials and equipment which are to be incorporated into the Work, which have not been used and which have been delivered to the construction site, and placed in storage area acceptable to the OWNER. The Application for Payment shall be accompanied by such data, satisfactory to the OWNER, that will establish the OWNER'S title to the material and equipment and protect the OWNER'S interest therein, including insurance. Each subsequent Application for Payment shall include an affidavit of the CONTRACTOR stating that all previous progress payments

received on account of the Work have been applied to discharge in full, all of the CONTRACTOR'S obligations reflected in prior Applications for Payment. The OWNER shall have the right to deduct from the next progress payment, an amount equal to payment for said material and/or equipment if reasonable and adequate proof is not submitted.

- B. Materials and equipment, when so paid for by the OWNER, shall become the property of the OWNER and in the event of default on the part of the CONTRACTOR, the OWNER may use, or cause to be used, these materials and equipment in the construction of the Work. The CONTRACTOR shall be responsible for any damage to, or loss of, these materials and equipment. The amount paid by the OWNER shall reduce the estimated amounts due the CONTRACTOR as the material is incorporated into the Work.
- C. No partial payment shall be made for fuels, supplies, lumber, false work, or other expendable or temporary materials, or on temporary structures of any kind which are not a permanent part of the Contract.

## PART 2 PRODUCTS

Not used.

## PART 3 EXECUTION

### 3.01 GENERAL

- A. The items of work required by the General Conditions, Supplementary Conditions, Special Conditions and Division 1 - General Requirements shall not be measured and paid separately, except as expressly indicated therein, but shall be included in the prices bid for each unit and lump sum item.
- B. The payment for various unit and lump sum items listed below shall include all materials, labor, tools, equipment and incidental work necessary to complete the item in accordance with the plans and specifications whether or not the particular work is mentioned in the following paragraphs.

### 3.02 ITEM 1 – PAINTING INTERIOR OF CENTRAL CORE STANDPIPE - LUMP SUM

- A. The lump sum price for Item 1 – Painting Interior of Central Core Standpipe shall constitute full compensation for work of the Contractor including furnishing all labor, materials, tools, and equipment necessary to sandblast and properly dispose of sandblasting material, and refinish the interior of the standpipe complete, as indicated on drawings and specified, except for that work specifically included for payment under the other items.

### 3.03 ITEM 2 – WELDING OF CORROSION PITS (1/8" DEEP) - EACH

- A. Measurement:
  - 1. Welding of corrosion pits shall be measured per pit installed including all welding materials and labor to complete the installation.
- B. Payment:
  - 1. Payment shall be made at the contract unit price for work completed and accepted.

### 3.04 ITEM 3 – ¼" PATCH WELDING – SQUARE FEET

- A. Measurement:

1. Welding of ¼" patches shall be measured per square foot installed including all welding materials and labor to complete the installation.

B. Payment:

1. Payment shall be made at the contract unit price for work completed and accepted.

3.05 ITEM 4 – FILLING CORROSION PITS WITH SURFACER – GALLON

A. Measurement:

1. Filling corrosion pits with surfacer shall be measured per gallon applied including all materials and labor to complete the application.

B. Payment:

1. Payment shall be made at the contract unit price for work completed and accepted.

3.06 ITEM 5 – PAINTING EXTERIOR OF CENTRAL CORE STANDPIPE - LUMP SUM

- A. The lump sum price for Item 5 – Painting Exterior of Central Core Standpipe shall constitute full compensation for work of the Contractor including furnishing all labor, materials, tools, and equipment necessary to sandblast and properly dispose of sandblasting material, and refinish the exterior of the standpipe complete, as indicated on drawings and specified, except for that work specifically included for payment under the other items.

3.07 ITEM 6 – PAINTING PIPING AND VALVES - LUMP SUM

- A. The lump sum price for Item 6 – Painting Piping and Valves shall constitute full compensation for work of the Contractor including furnishing all labor, materials, tools, and equipment necessary to sandblast and properly dispose of sandblasting material, and refinish the piping and valves complete, as indicated on drawings and specified, except for that work specifically included for payment under the other items.

3.08 ITEM 7 – CENTRAL CORE STANDPIPE COVER - LUMP SUM

- A. The lump sum price for Item 7 – Central core Standpipe Cover shall constitute full compensation for work of the Contractor including furnishing all labor, materials, tools, and equipment necessary to remove and properly dispose of the existing wooden cover, and furnishing and installing a new hinged fiberglass replacement cover, as indicated on drawings and specified, except for that work specifically included for payment under the other items.

END OF SECTION

## SECTION 01030

### SPECIAL PROVISIONS

#### PART 1 GENERAL

##### 1.01 WATER FOR CONSTRUCTION PURPOSES

- A. In locations where water is in sufficient supply, the Contractor may be allowed to use water without charge for construction purposes. The express approval of the Owner shall be obtained before water is used. Waste of water by the Contractor shall be sufficient cause for withdrawing the privilege of unrestricted use.
- B. If no water is available, the Contractor shall supply water at no additional cost to the Owner.

##### 1.02 PIPE LOCATION

- A. Pipe will be located substantially as indicated on drawings. Invert elevations as indicated on the drawings refer to the bottom of the inside of the pipe. The right is reserved to the Owner, acting through the Engineer to make such modifications as may be found desirable to avoid interference with existing structures or for other reasons.

##### 1.03 DIMENSIONS OF EXISTING STRUCTURES

- A. Where the dimensions and locations of existing structures are of critical importance in the installation or connections of new work, the Contractor shall verify such dimensions and locations in the field before the fabrication of any material or equipment which is dependent on the correctness of such information.

##### 1.04 OCCUPYING PRIVATE PROPERTY

- A. The Contractor shall not enter upon nor occupy with men, equipment or materials any property outside of the public highways or City easements, except after the consent of the owners or their agents.

##### 1.05 COORDINATION WITH UTILITIES

- A. The Contractor shall coordinate all work involving all local utilities. The Contractor shall satisfy himself as to the existing conditions or the areas in which he is to perform his work. He shall conduct and arrange his work so as not to impede or interfere with the work of other contractors working in the same or adjacent areas. The Contractor shall also be responsible for coordinating any and all work performed by his subcontractors.
- B. The Contractor shall coordinate utility locations through "Dig Safe" as specified in Section 01047.

##### 1.06 CONNECTIONS TO EXISTING SYSTEM

- A. The Owner will, upon 24-hour notice from the Contractor, assist the Contractor by locating and opening and closing any and all valves required for draining or admitting water to the various sections of the main as required to perform the proposed work. No damages shall be claimed by the Contractor for delays in dewatering pipelines nor shall any damages claimed because of water leaking through closed valves after dewatering is completed.

- B. The cost of Owner's personnel providing assistance to the Contractor as stated above shall be incurred by the Owner if said assistance is provided during the normal working hours (Monday through Friday, 7:00 A.M. to 3:30 P.M.) of the personnel. The cost of any assistance by City personnel required by the Contractor outside of these normal working hours shall be incurred by the Contractor at the current rate of pay for overtime for the personnel providing the assistance. The Owner shall bill the Contractor directly for providing this service.

#### 1.07 MAINTENANCE OF TRENCH SURFACE

- A. After backfilling and compacting the trench, the Contractor shall be responsible to keep the ground surface dry and passable at all times until the surface has been restored to original conditions.

#### 1.08 PROTECTION OF AQUIFER

- A. The Contractor's attention is directed to the fact that the construction area is located within a sand and gravel aquifer supplying groundwater to the existing well. The Contractor shall take extra precautions to ensure that no pollutants enter the groundwater table within the construction area. The Contractor shall not store hazardous fuels or other potential contaminants on the construction site and shall take immediate action if any spills occur. This shall include removal of any contaminated soil and replacement with clean fill. In the event of a spill, the Engineer shall be notified immediately.
- B. Refueling of construction equipment and washing of equipment shall not be performed on the site without permission from the Engineer.

#### 1.09 SUPERINTENDENCE

- A. The Contractor shall employ on this work, full time, a Superintendent who has had at least four years' experience working on similar municipal water main installation projects. As a Superintendent, he shall be totally responsible for the proper supervision of all work crews and any subcontractors employed in the work.

#### 1.10 CHARACTER OF THE CONTRACTOR'S SUPERINTENDENT AND WORKERS

- A. The CONTRACTOR'S superintendent shall conduct himself in a professional and responsible manner. If, in the opinion of the ENGINEER, the superintendent does not conduct him/herself in a manner that is professional and courteous, the ENGINEER may recommend to the OWNER to relieve the superintendent of his/her responsibilities and have him/her removed from the project. Upon written notice from the OWNER the superintendent shall immediately be relieved of his/her responsibilities and be removed from the project. If a superintendent change is to be made, work shall be terminated until qualifications of a new superintendent have been submitted and approved by the OWNER and ENGINEER. The superintendent that was removed from the site shall not be allowed to work on any other portion of the work in this Contract without written approval of the ENGINEER. The OWNER and ENGINEER do not take responsibility in conduct of the superintendent or the scheduling and completion of work.

#### 1.11 CONSTRUCTION EQUIPMENT

- A. All construction equipment to be used on all trench excavation during execution of this contract on public ways must be properly licensed in accordance with the current laws of the Commonwealth of Massachusetts.

1.12 CONSTRUCTION EQUIPMENT OPERATORS

- A. Contractor will insure that all construction equipment and heavy vehicle operators employed on this contract have valid operator's licenses issued by the Commonwealth of Massachusetts.

PART 2 PRODUCTS

NONE THIS SECTION

PART 3 EXECUTION

NONE THIS SECTION

END OF SECTION

## SECTION 01040

### CONTRACT COORDINATION

#### PART 1 GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Coordination of Work required by the Contract.

##### 1.02 DESCRIPTION

- A. Coordinate scheduling, submittals, and work of the various sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.

##### 1.03 MEETINGS

- A. Hold coordination meetings and preinstallation conferences with personnel and subcontractors to assure coordination of Work.

##### 1.04 COORDINATION OF SUBMITTALS

- A. Schedule and coordinate submittals as specified in Section 01340.
- B. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing equipment in service.
- C. Coordinate requests for substitutions from all subcontractors to assure compatibility of space, of operating elements, and effect on work of other sections.

##### 1.05 COORDINATION OF CONTRACT CLOSEOUT

- A. Coordinate completion and cleanup of work in preparation for Substantial Completion.
- B. After OWNER occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, in a manner that minimizes disruption of OWNER'S activities.
- C. Assemble and coordinate closeout submittals specified in Section 01701.

##### 1.06 COORDINATION WITH OTHER CONTRACTORS

- A. Cooperate with other contractors working within the same site or on adjacent sites.
- B. Coordinate the Work of this Contract with other contractors so as not to interfere with or hinder the progress or completion of the work being performed by other contractors.

##### 1.07 COORDINATION WITH THE CITY OF NEWTON

- A. The existing water distribution system for the City of Newton is currently supplied by two other sources. Coordinate with the City during all water utility connections.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01067

PERMITS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall be responsible for obtaining permits specified under Section 00700 GENERAL CONDITIONS, Paragraph 6.13.

1.02 ROAD OPENING PERMIT

- A. A Road Opening Permit issued through the City of Newton Highway Department will be required for the work. This Permit will be obtained and paid for by the Contractor.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. CONTRACTOR participation in progress meetings.

1.02 PROGRESS MEETINGS

- A. ENGINEER will schedule and administer progress meetings at least once per month throughout progress of the Work.
- B. ENGINEER will make physical arrangements for meetings, prepare agenda, notify CONTRACTOR as to whether Subcontractor's or supplier's representatives should attend, preside at meetings, record minutes, and distribute copies of minutes to participants within two (2) weeks after meeting.
- C. Attendance: CONTRACTOR'S Superintendent or authorized representative, representatives of major subcontractors and suppliers; ENGINEER; and other representatives as appropriate to agenda topics for each meeting.
- D. Tentative Agenda:
  - 1. Review of Work progress.
  - 2. Review of progress schedule.
  - 3. Delivery schedules.
  - 4. Submittals.
  - 5. Pending changes and substitutions.
  - 6. Payrolls.
  - 7. Subcontractor's progress.
  - 8. Other items affecting progress of Work.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01210

PRECONSTRUCTION CONFERENCE

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. CONTRACTOR participation in preconstruction conference.

1.02 PRECONSTRUCTION CONFERENCE

- A. ENGINEER will schedule preconstruction conference within 15 days after Notice of Award.
- B. Attendance: OWNER, ENGINEER, local authorities and CONTRACTOR.
- C. Agenda:
  - 1. Submittal of executed bonds and insurance certificates.
  - 2. Execution of Contract.
  - 3. Distribution of Contract Documents.
  - 4. Submittal of list of Subcontractors, list of products proposed for installation, schedule of values, and progress schedule.
  - 5. Designation of responsible personnel.
  - 6. Submittal of list of products proposed for substitution.
  - 7. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal requests, change orders, and Contract closeout procedures.
  - 8. Certified payroll requirements for CONTRACTOR and Subcontractors.
  - 9. Scheduling and critical work sequencing.
  - 10. Coordination with other contracts and/or work.
  - 11. Use of premises by OWNER and CONTRACTOR.
  - 12. Construction facilities and controls provided by CONTRACTOR.
  - 13. Construction facilities and controls provided by OWNER.
  - 14. Temporary utilities provided by OWNER.
  - 15. Field engineering.
  - 16. Major equipment deliveries and priorities.
  - 17. Project inspection.
  - 18. Labor requirements.
  - 19. Requirements of railroads, highway departments, other agencies and utility companies.

20. Rights-of-way and easements.
21. Winter maintenance.
22. Security and housekeeping procedures.
23. Payments to CONTRACTOR.
24. Procedures for testing.
25. Procedures for maintaining Record Documents.
26. Requirements for start-up of equipment.
27. Inspection and acceptance of equipment put into service during construction period.
28. Substantial completion of Work.
29. Final completion of Work.

#### PART 2 PRODUCTS

Not Used

#### PART 3 EXECUTION

Not Used

END OF SECTION

## SECTION 01300

### SUBMITTALS AND SUBSTITUTIONS

#### PART 1 GENERAL

##### 1.01 DESCRIPTION

###### A. Work included:

1. Wherever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined either by manufacturer's name and catalog number or by reference to recognized industry standards.
2. To ensure that the specified products are furnished and installed in accordance with design intent, procedures have been established for advance submittal of design data and for its review and approval or rejection by the Engineer.

###### B. Related work described elsewhere:

1. Contractual requirement for submittals - General Conditions and Supplementary Conditions.
2. Individual submittals required - Pertinent sections of these Specifications.

##### 1.02 PRODUCT HANDLING

Make all submittals of Shop Drawings, samples, requests for substitutions and other items in strict accordance with the provisions of this Section of these Specifications.

#### PART 2 PRODUCTS

##### 2.01 SHOP DRAWINGS

###### A. Scale required:

Unless otherwise specifically directed by the Engineer, make all Shop Drawings accurately to a scale sufficiently large to show all pertinent features of the item and its method of connection to the work.

###### B. Quantity:

Unless otherwise specifically directed by the Engineer, submit not less than six (6) copies of the Shop Drawings to the Engineer.

##### 2.02 MANUFACTURER'S CERTIFICATIONS

- A. For pipe, cement, steel reinforcement, paint and similar materials which are normally tested in the shop by the manufacturer, furnish the Engineer certified records of physical, chemical and other pertinent tests and/or certified statements from the manufacturer that the materials have been manufactured and tested in conformity with the specifications. Where such a small quantity of material is required as to make physical tests or chemical analyses impractical, a certificate from the manufacturer stating the results of such tests or analyses of similar materials which were concurrently produced, may, at the discretion of the Engineer, be considered as the basis for the acceptance of such materials.

- B. Each manufacturer's certificate shall be endorsed or accompanied by the Contractor's certificate that the material certified by the manufacturer will be the material incorporated in the work.

## 2.03 SAMPLES

- A. Accuracy of sample: Unless otherwise specifically directed by the Engineer, all samples shall be of the precise article proposed to be furnished.

## 2.04 SUBSTITUTIONS

- A. Engineer's approval required:

1. The Contract is based on the materials, equipment and methods described in the Contract Documents.
2. The Engineer will consider proposals for substitution of materials, equipment and methods only when such proposals are accompanied by full and complete technical data and all other information required by the Engineer to evaluate the proposed substitution.
3. Do not substitute materials, equipment or methods unless such substitution has been specifically approved for this Work by the Engineer.

- B. "Or equal":

1. Where the phrase "or equal" occurs in the Contract Documents, do not assume that material, equipment or methods will be approved as equal by the Engineer unless the item has been specifically approved for this Work by the Engineer.
2. The decision of the Engineer shall be final.

- C. Availability of specified items:

1. Verify prior to bidding that all specified items will be available in time for installation during orderly and timely progress of the work.
2. In the event specified item or items will not be so available, so notify the Engineer prior to receipt of bids.

## 2.05 MANUALS

- A. General:

Manuals are required to be submitted covering electrical and mechanical items included in this work, prepare all such manuals in durable plastic binders approximately 8-1/2 by 11 inches in size and with at least the following:

1. Identification on, or readable through, the front cover stating the general nature of the manual.
2. Neatly typewritten index near the front of the manual furnishing information as to location in the manual of all emergency data regarding the installation.
3. Complete instructions regarding operations and maintenance of all equipment involved.
4. Complete nomenclature of all replaceable parts, their part numbers, current cost and name and address of nearest vendor of parts.
5. Copy of all guarantees and warranties issued.

6. Copy of the approved Shop Drawings with all data concerning changes made during construction.

B. Extraneous data:

Where contents of manuals include manufacturer's catalog pages, clearly indicate the precise items included in this installation and delete, or otherwise clearly indicate all manufacturer's data with which this installation is not concerned.

C. Number of copies required:

Unless otherwise specifically directed by the Engineer, deliver not less than four copies of the manual to the Engineer.

### PART 3 EXECUTION

#### 3.01 IDENTIFICATION OF SUBMITTALS

A. Completely identify each submittal and resubmittal by showing at least the following information:

1. Name and address of submitter, plus name and telephone number of the individual who may be contacted for further information.
2. Name of project.
3. Drawing number and Specifications Section number to which the submittal applies.
4. Whether this is an original submittal or resubmittal.

#### 3.02 COORDINATION OF SUBMITTALS

A. General:

Prior to submittal for Engineer's review, use all means necessary to fully coordinate all material, including the following procedures:

1. Determine and verify all field dimensions and conditions, materials, catalog numbers and similar data.
2. Coordinate as required with all trades and with all public agencies involved.
3. Secure all necessary approvals from public agencies and others and signify by stamp, or other means, that they have been secured.
4. Clearly indicate all deviations from the Contract Documents.

B. Grouping of submittals:

Unless otherwise specifically permitted by the Engineer, make all submittals in groups containing all associated items. The Engineer may reject partial submittals as not complying with the provisions of the Contract Documents.

#### 3.03 TIMING OF SUBMITTALS

A. General:

Make all submittals far enough in advance of scheduled dates of installation to provide all required time for reviews, for securing necessary approvals, for possible revision and resubmittal and for placing orders and securing delivery.

B. Delays:

Costs of delays occasioned by tardiness of submittals may be backcharged as necessary and shall not be borne by the Owner.

END OF SECTION

## SECTION 01310

### PROGRESS SCHEDULES

#### PART 1 GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Procedures for preparation and submittal of construction Progress Schedules and periodic updating.

##### 1.02 FORMAT

- A. Prepare Schedules as a horizontal bar chart or network with separate bar or node for each major portion of Work or operation, identifying first work day of each week and identifying each portion of the Work that is critical to timely project completion. All project scheduling shall be prepared using critical path method analysis.
- B. Sequence of Listings: The chronological order of the start of each item of Work.
- C. Scale and Spacing: Provide space for notations and revisions.
- D. Sheet Size: Multiple of 22 x 34 inches.

##### 1.03 CONTENT

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify each item by major specification section number.
- C. Identify work of separate stages or separate floors, and other logically grouped activities.
- D. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the last day of each month.
- E. Provide separate schedule of submittal dates for shop drawings, product data and samples, and dates reviewed submittals will be required from ENGINEER. Show decision dates for selection of finishes.
- F. Coordinate content with Section 01370 - Schedule of Values.
- G. CONTRACTORS shall not manipulate float time which results in a schedule that varies substantially from the contract time allowed in these Contract Documents.

##### 1.04 REVISIONS TO SCHEDULES

- A. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
- B. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.

- C. Provide narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect.

#### 1.05 SUBMITTALS

- A. Submit initial schedules at the preconstruction conference. After review, resubmit required revised data within ten (10) days.
- B. Submit revised progress schedules for review, with each application for payment.
- C. Submit four (4) copies which will be retained by ENGINEER.

#### 1.06 DISTRIBUTION

- A. Distribute copies of reviewed schedules to job site file, subcontractors, suppliers, and other concerned entities.
- B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

#### PART 2 PRODUCTS

Not Used.

#### PART 3 EXECUTION

Not Used.

END OF SECTION

## SECTION 01340

### SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

#### PART 1 GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Procedures for submittals.
- B. Schedule of submittals.

##### 1.02 SHOP DRAWINGS

- A. Present in a clear and thorough manner. Title each drawing with Project name and transmittal number; identify each element of drawings by reference to sheet number, detail and schedule of Contract Documents. The CONTRACTOR shall use and complete the transmittal form included at the end of this Section.
- B. Identify field dimensions; show relation to adjacent or critical features or Work or products.
- C. Minimum Sheet Size: 22 x 17 inches or multiples of 8-1/2 x 11 inches.
- D. Number Required: Six (6) copies of each page or sheet assembled in separate sets.

##### 1.03 PRODUCT DATA

- A. Submit only pages which are pertinent; mark each copy of standard printed data to identify pertinent products, referenced to Specification Section and Article number. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances. Provide Material Safety Data Sheets required by OSHA for all chemicals to be supplied under this Contract. Submittals made without the required transmittal form which clearly identifies the respective specification section number for which the submittal is being made will be returned without review. It is the CONTRACTOR'S responsibility to make clearly identified submittals.
- B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the Work. Delete information not applicable.
- C. Provide manufacturer's preparation, assembly, delivery, storage, installation, start up, adjusting, and finishing instructions.
- D. If similar or identical submittal material can be submitted under more than one specification section, the CONTRACTOR shall make separate clearly identified submittals for each specification section. Submittal materials for any specification section shall be complete for that section; partial submittals are unacceptable.

##### 1.04 SAMPLES

- A. Submit full range of manufacturer's standard finishes, except when more restrictive requirements are specified, indicating colors, textures, and patterns, for ENGINEER'S selection.
- B. Submit samples to illustrate functional characteristics of products, including parts and attachments.
- C. Acceptable samples which may be used in the Work are indicated in the specification section.
- D. Label each sample with identification required for transmittal letter.
- E. Provide field samples of finishes at Project, at location acceptable to ENGINEER, as required by individual specification sections. Install each sample complete and finished. Acceptable finishes in place may be retained in completed work.

- F. Those provisions of paragraph 1.03 which relate to submittal identification and completeness are applicable for sample submittal.

#### 1.05 CONTRACTOR REVIEW

- A. Review submittals prior to transmittal; determine and verify field measurements, field construction criteria, manufacturer's catalog numbers, and conformance of submittal with requirements of Contract Documents.
- B. Coordinate submittals with requirements of Work and of Contract Documents.
- C. Sign and date each sheet of shop drawings and product data, and each sample label to certify compliance with requirements of Contract Documents. Notify ENGINEER in writing at time of submittal, of any deviations from requirements of Contract Documents.
- D. Do not fabricate or ship products or begin work which requires submittals until return of submittal that ENGINEER has reviewed.
- E. CONTRACTOR shall check and verify all field measurements and shall be responsible for prompt submission of all shop and working drawings so that there shall be no delay in the Work.
- F. CONTRACTOR shall be responsible for the delays and/or additional expenses that result from the CONTRACTOR'S failure to submit a complete submittal and/or to identify portions of the submittal that does not conform to the specifications.

#### 1.06 SUBMITTAL REQUIREMENTS

- A. Transmit submittals with required submittal form included herewith, in accordance with the Progress Schedule and in such sequence to avoid delay in the Work.
- B. Apply CONTRACTOR'S stamp, signed certifying to review, verification of products, field dimensions and field construction criteria, and coordination of information with requirements of Work and Contract Documents.
- C. Coordinate submittals into logical groupings to facilitate interrelation of the several items:
  - 1. Finishes which involve ENGINEER selection of colors, textures, or patterns.
  - 2. Associated items which require correlation for efficient function or for installation.
- D. Submit a minimum of six (6) copies of shop drawings; three (3) of which will be retained by ENGINEER upon review; the remaining will be returned to the CONTRACTOR.
- E. Submit a minimum of six (6) copies of product data; three (3) copies which will be retained by ENGINEER upon review; the remaining copies will be returned to the CONTRACTOR.
- F. Submit number of samples required by individual specification sections.
- G. Submit to ENGINEER using transmittal form provided in this Section. Identify Project by title and number. Identify work and product by specification section and paragraph number. ENGINEER will designate a submittal number upon receipt.
- H. Review by ENGINEER of any deviation in material, workmanship or equipment proposed subsequent to approval of the shop drawings, samples or design data shall be requested in writing by the CONTRACTOR.

#### 1.07 RESUBMITTALS

- A. Make resubmittals under procedures specified for initial submittals; identify changes made since previous submittal.

- B. A maximum of two submissions of each shop drawings will be reviewed, checked and commented upon by the ENGINEER without charge to the Contractor. Any additional submissions which are ordered by the ENGINEER to fulfill the stipulations of the CONTRACT DOCUMENTS or to make modifications and/or corrections order by the ENGINEER in the review of the first two ship drawings submittals will be reviewed and checked and commented upon by the ENGINEER. However, the cost for such subsequent reviews (based upon the ENGINEER's documentation of time and materials) will be the sole responsibility of the Contractor. Such costs will be deducted from the Contractor's monthly payment requests.

1.08 ENGINEER REVIEW

- A. ENGINEER will respond to submittals with reasonable promptness.
- B. Submittals reviewed will be returned stamped as follows:

NO EXCEPTION TAKEN	
REVISED AS NOTED RESUBMISSION NOT REQUIRED	
REVISED AS NOTED RESUBMISSION REQUIRED	
REJECTED	
<p>REVIEW BY STANTEC IS FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMITY WITH DESIGN. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS, FABRICATIONS AND CONSTRUCTION METHODS, COORDINATION OF SUB-TRADES, DETAIL DESIGN OF COMPONENTS, AND ERRORS OR OMISSIONS ON SHOP DRAWINGS.</p> <p style="text-align: center;">STANTEC</p> <p>Date: _____ By: _____</p>	

1.09 DISTRIBUTION

- A. Duplicate and distribute reproductions of shop drawings, copies of product data, and samples, which bear ENGINEER'S stamp to job site file, Record Documents file, subcontractors, suppliers, other affected contractors, and other entities requiring information.

1.10 SCHEDULE OF SUBMITTALS

- A. Shop drawings, product data and sample submittals shall be made in a timely and logical fashion taking into account work scheduling and job progress.

1.11 REVIEW QUALIFICATION

- A. Regardless of corrections made or acceptance of such drawings by the ENGINEER, the CONTRACTOR will nevertheless be responsible for the accuracy of such drawings and for their conformity to the Contract Documents. The CONTRACTOR shall notify the ENGINEER in writing of any deviations at the time he furnishes such drawings.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

SUBMITTAL FORM

(TO BE USED AS A COVER TO EACH SUBMITTAL)

Date \_\_\_\_\_

1. The attached submittal covers materials or equipment specified under

Specification Section No. \_\_\_\_\_, titled \_\_\_\_\_  
\_\_\_\_\_ and Drawing No. \_\_\_\_\_  
titled \_\_\_\_\_.

No other specification sections or drawings related to this submittal.

2. This submittal covers material or equipment that is: (circle one):

- a. in full compliance with that specified  
b. in compliance with that specified except for the attached minor deviations:

(Identify the minor deviations with particularity. If the ENGINEER determines these deviations to be other than minor, the submittal will be rejected and the CONTRACTOR must submit a request for substitute materials or equipment. ENGINEER'S REVIEW AND ACCEPTANCE OF SHOP DRAWINGS OR SAMPLES SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR EXPRESSLY BRINGS EACH VARIATION TO THE ENGINEER'S ATTENTION AND ENGINEER HAS GIVEN WRITTEN ACCEPTANCE OF EACH SUCH VARIATION BY A SPECIFIC WRITING).

3. Certification

Signed \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_  
CONTRACTOR

END OF SECTION

SECTION 01370

SCHEDULE OF VALUES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures for preparation and submittal of schedule of values.

1.02 FORMAT

- A. Type schedule on AIA Document G703 or alternate form approved by ENGINEER.
- B. Follow table of contents of Contract Documents for listing component parts. Identify each line item by number and title of major specification section. Separate items by corresponding division.
- C. If Project is bid as unit price, follow bid item schedule for listing component parts.

1.03 CONTENT

- A. List estimated installed value of each major item of Work and each subcontracted item of Work as a separate line item to serve as a basis for computing values for Progress Payments. Round off values to nearest dollar. Line items shall be subtotaled by corresponding division.
- B. For each major subcontract, list products and operations of that subcontract as separate line items.
- C. Coordinate listed items with Progress Schedule.
- D. For lump sum contracts, component listing shall each include a directly proportional amount of CONTRACTOR'S overhead, profit and bonds and insurance costs.
- E. For items on which payments will be requested for stored products, list sub-values for cost of stored products.
- F. The sum of values listed shall equal total Contract Price.
- G. If Project is bid as unit price contract, follow bid item schedule for listing component parts.
- H. Unbalanced schedule of values will not be acceptable and, when discovered, will be returned for adjustment to reflect actual costs.

1.04 SUBMITTAL

- A. Submit six (6) copies of schedule ten (10) days prior to first Application for Payment.

1.05 SUBSTANTIATING DATA

- A. When ENGINEER requires substantiating information, submit data justifying line item amounts in question. Only those line item amounts which the CONTRACTOR can justify to the ENGINEER'S satisfaction will be acceptable.
- B. Provide six (6) copies of data with cover letter.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01400

QUALITY CONTROL

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. General quality control.
- B. Manufacturers' field services.

1.02 QUALITY CONTROL, GENERAL

- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

1.03 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances, more rigid standards, or more precise workmanship are specified.
- B. Perform work using persons qualified to produce workmanship of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.04 MANUFACTURERS' INSTRUCTIONS

- A. Comply with manufacturer's printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing, as appropriate.
- B. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from ENGINEER before proceeding.

1.05 MANUFACTURERS' CERTIFICATES

- A. As required by individual specification sections, submit manufacturer's certificate, in duplicate, that products meet or exceed specified requirements.

1.06 MANUFACTURERS' FIELD SERVICES

- A. As specified in Section 01731 - Services of Manufacturers' Representatives, require manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, testing, adjusting and balancing equipment as applicable.
- B. Manufacturers' representative shall submit written report to ENGINEER listing observations, tests and corrective measures.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

## SECTION 01567

### ENVIRONMENTAL PROTECTION

#### PART 1 GENERAL

##### 1.01 DESCRIPTION

- A. The work covered by this section of the specifications consists of furnishing all labor, materials, tools and equipment and performing all work required for the prevention of environmental pollution during and as a result of construction operations under this contract.
- B. The requirements set forth in this section of the specifications apply to cross country areas, stream crossings and areas adjacent to wetlands, unless otherwise specifically stated.

##### 1.02 NOTIFICATION

- A. The Engineer will notify the Contractor in writing of any non-compliance with the foregoing provisions. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails to act promptly, the Engineer may order stoppage of all or part of the work until satisfactorily corrective action has been taken. No claim for an extension of time or for excess costs or damage incurred by the Contractor as a result of time lost due to any stop orders shall be made unless it was later determined that the Contractor was in compliance.

#### PART 2 PRODUCTS

None Used

#### PART 3 EXECUTION

##### 3.01 AREAS OF CONSTRUCTION ACTIVITY

- A. Insofar as possible, the Contractor shall confine his construction activities to those areas defined by the plans and specifications. All land resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their present condition or be restored to a condition after completion of construction at least equal to that which existed prior to work under this contract.

##### 3.02 PROTECTION OF WATER RESOURCES

- A. The Contractor shall not pollute streams, lakes or reservoirs with fuels, oils, bitumens, calcium chloride, acids or harmful materials. It is the Contractor's responsibility to comply with all applicable Federal, State, County and Municipal laws regarding pollution of rivers and streams.
- B. Special measures should be taken to insure against spillage of any pollutants into public waters.

##### 3.03 PROTECTING AND MINIMIZING EXPOSED AREAS

- A. The Contractor shall limit the area of land which is exposed and free from vegetation during construction. In areas where the period of exposure will be greater than two (2) months, temporary vegetation, mulching or other protective measures should be provided as specified.

- B. The Contractor shall take account of the conditions of the soil where temporary cover crop will be used to insure that materials used for temporary vegetation are adaptive to the sediment control. Materials to be used for temporary vegetation shall be approved by the Engineer.

#### 3.04 LOCATION OF STORAGE MATERIAL

- A. The location of the Contractor's storage areas for equipment and/or materials shall be upon cleared portions of the job site or areas to be cleared, and shall require written approval of the Engineer. Plans showing storage facilities for equipment and materials shall be submitted for approval of the Engineer.
- B. No excavated materials or materials used in backfill operations shall be deposited within a minimum distance of twenty-five (25) feet of any watercourse or any drainage facility. Adequate measures for erosion and sediment control such as the placement of baled hay or straw around the downstream perimeter of stockpiles shall be employed to protect any downstream areas from siltation.
- C. The Engineer may designate a particular area or areas where the Contractor may store materials used in his operations.

#### 3.05 PROTECTION OF LANDSCAPE

- A. Except in areas marked on the plans to be cleared, the Contractor shall not deface, injure, or destroy trees or shrubs nor remove or cut them without special authority. No ropes, cables or guys shall be fastened to or attached to any existing nearby trees for anchorages unless specifically authorized by the Engineer. The Contractor shall in any event be responsible for any damage resulting from such use.

#### 3.06 DISCHARGE OF DEWATERING OPERATIONS

- A. Any water that is pumped and discharged from the trench and/or excavation as part of the Contractor's water handling shall be filtered by an approved method prior to its discharge into a receiving water or drainage system.
- B. The pumped water shall be filtered through baled hay, a vegetative filter strip or a vegetated channel to trap sediment occurring as a result of the construction operations. The vegetated channel shall be constructed such that the discharge flow rate shall not exceed a velocity of more than 1 foot per second. The sediment shall be cleared from the channel periodically.

#### 3.07 DUST CONTROL

- A. During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities including sweeping and sprinkling of streets as necessary, so as to minimize the creation and dispersion of dust. If the Engineer decides that it is necessary to use water for more effective dust control, the Contractor shall furnish and spread the material, as directed.

#### 3.08 SEPARATION OF TOPSOIL

- A. From areas within which excavations are to be made, loam and topsoil shall be carefully removed and separately stored to be used again as directed. The topsoil shall be stored in an area acceptable to the Engineer and adequate measures shall be employed to prevent erosion of said material.

3.09 REPLACEMENT OF TOPSOIL IN CROSS COUNTRY ROUTES

- A. The contractor shall replace, back to its original locations and depths, that topsoil which has been separated according to the provisions described above.

3.10 BALED HAY OR STRAW

- A. To trap sediment and to prevent sediment from clogging drainage systems, baled hay or straw shall be used where directed by the Engineer. Care shall be taken to keep them from breaking apart. The bales should be staked to prevent overturning, flotation, or displacement. All deposited sediment shall be removed periodically.

3.11 SILT FENCE

- A. Where indicated on the drawings or where directed by the Engineer, the Contractor shall erect and maintain a temporary silt fence. The silt fence shall be used specifically to contain sediment from runoff water and to minimize environmental damage caused by construction.
- B. The silt fence shall be securely erected within the work area limits as shown on the plans. The fence shall be 3 feet high securely bound to the fabric. The Contractor shall place bales of hay or straw alongside the fence and secure them in place. The trapped sediment shall be periodically removed.
- C. If in the opinion of the Engineer the silt fence is not providing adequate sediment control, the Engineer shall direct the Contractor to provide additional measures such as covering the fence with either burlap or a plastic filter fabric or other methods to adequately control erosion.

END OF SECTION

## SECTION 01630

### PRODUCT OPTIONS AND SUBSTITUTIONS

#### PART 1 GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. CONTRACTOR'S options in selection of products.
- B. Products list.
- C. Requests for substitution of products.

##### 1.02 CONTRACTOR OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Submit data substantiating that product meets those standards in accordance with Section 01300, if required.
- B. Products Specified by Naming One or More Manufacturers with a Substitution Paragraph: Submit a request for substitution for products of any manufacturer not specifically named.

##### 1.03 PRODUCTS LIST

- A. At preconstruction conference submit three (3) copies of a list of major products which are proposed for installation, including name of manufacturer. The CONTRACTOR will not be allowed a substitution for products not identified on this list.
- B. Tabulate products by specification section number, title, and paragraph number.
- C. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- D. ENGINEER will not reply to this list of major products. All acceptance or rejection and comments by the ENGINEER will be reserved until submittal of product data for conforming products or products proposed for substitution.

##### 1.04 LIMITATIONS ON SUBSTITUTIONS

- A. Many sections of these specifications are based on specific manufacturer recommendations. Use of these recommendations does not and is not intended to exclude equal equipment of other manufacturers. The specifications serve only as a guide to minimum quality and performance.

##### 1.05 REQUESTS FOR SUBSTITUTIONS

- A. Requests for substitutions not made in strict conformance with this paragraph will be unacceptable and will be rejected by the ENGINEER without review.
- B. Submit separate request for each substitution using the form included at the end of this Section. Document each request with complete data substantiating compliance of proposed substitution with requirements of Contract Documents.

- C. Identify product by specification sections and paragraph numbers. Provide manufacturer's name and address, trade name of product, and model or catalog number. List fabricators and suppliers as appropriate.
- D. Attach product data as specified in Section 01300.
- E. List similar projects using product, dates of installation, and names of ENGINEER and OWNER.
- F. Give itemized comparison of proposed substitution with specified product, listing variations, and reference to Specification section and paragraph numbers.
- G. Give quality and performance comparison between proposed substitution and the specified product.
- H. Give cost data comparing proposed substitution with specified product, and amount of net change to Contract Price.
- I. List availability of maintenance services and replacement materials.
- J. State effect of substitution on construction schedule, and changes required in other work or products.
- K. A substitute product may be considered equal to the product identified in the Specifications if (1) it is at least equal in quality, durability, appearance, strength and design; (2) it will perform at least equally the function imposed by the general design for the work being contracted for or the material being purchased; and (3) it conforms substantially, even with deviations, to the detailed requirements for the product in said Specifications.

#### 1.06 REDESIGN

- A. Redesign of any portion of the work affected by the substitution and coordination of installation of the substitution shall be the responsibility of the CONTRACTOR. There shall be no increase in Contract Price for redesign due to substitution of products.

#### 1.07 CONTRACTOR REPRESENTATION

- A. Submission of a request for substitution constitutes a representation that CONTRACTOR has investigated proposed product and has determined that it is equal to or superior in all respects to specified product. The ENGINEER, however, will make such determination based on the CONTRACTOR'S request under paragraph 1.05.
- B. CONTRACTOR shall provide as a minimum, the same warranty for substitution products as for specified product.
- C. CONTRACTOR shall coordinate installation of accepted substitute, making such changes as may be required for Work to be complete in all respects.
- D. CONTRACTOR waives claims for additional costs related to substitution which may later become apparent.

#### 1.08 SUBMITTAL PROCEDURES

- A. After preconstruction conference, submit six (6) copies of request for substitution.

- B. ENGINEER will respond to CONTRACTOR'S requests for substitutions with reasonable promptness.
- C. ENGINEER will notify CONTRACTOR, in writing, of decision to accept or reject requested substitution.
- D. For accepted products, submit shop drawings, product data, and samples in accordance with Section 01300.
- E. Submit with request such drawings as are necessary to define the redesign necessary to accommodate product substitution. Drawings shall be stamped by a professional engineer registered in the State where the work under this Contract is located, and for the engineering disciplines affected by the substitution.

## PART 2 PRODUCTS

Not Used.

## PART 3 EXECUTION

### 3.01 INSTALLATION

- A. Installation of substitutions shall not be done unless written acceptance of ENGINEER has been given.

### SUBSTITUTION REQUEST FORM

Date: \_\_\_\_\_

1. Name of product to be substituted: \_\_\_\_\_

\_\_\_\_\_

2. Name of product requested as substitute: \_\_\_\_\_

\_\_\_\_\_

3. Specification Section Reference: \_\_\_\_\_

Drawing Number Reference: \_\_\_\_\_

4. Attach Product Data to this form.

5. List similar projects using this product:

	<u>Project</u>	<u>Date of Installation</u>	<u>Engineer</u>	<u>Owner</u>
i.	_____			
ii.	_____			
iii.	_____			

6. Attach itemized comparison by Specification Paragraph.

7. State effect of substitution on:

i. Construction Schedule: \_\_\_\_\_

ii. Project Cost: \_\_\_\_\_

iii. Changes Required in Other Work: \_\_\_\_\_

\_\_\_\_\_

8. Contractor Representations:

i. Contractor has complied with Section 01630 in its entirety.

ii. Contractor has investigated proposed substitution and has determined that it is equal or superior to the project specified.

iii. Contractor will provide same warranty as required for the specified product, as a minimum.

iv. Contractor will coordinate installation of substitution through completion.

- v. Contractor waives all claims for additional costs related to substitution which may later become apparent.
- vi. Contractor agrees to pay all reasonable fees of the Engineer and other consultants in making an evaluation of this substitution request whether such request is ultimately accepted or not.

9. Certification:

Signed \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_  
(Contractor)

END OF SECTION

## SECTION 01701

### CONTRACT CLOSEOUT REQUIREMENTS

#### PART 1 GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Administrative provisions for Contract closeout.

##### 1.02 REQUIREMENTS FOR CLOSEOUT

- A. Neither the final payment nor the remaining retained percentage shall become due until the CONTRACTOR submits to the ENGINEER:
  - 1. An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work for which the OWNER might in any way be responsible, have been paid or otherwise satisfied (see attached form at end of this section).
  - 2. Data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent, and in such form as may be designated by the OWNER. If any subcontractor refuses to furnish a release or waiver required by the OWNER, the CONTRACTOR may furnish a bond satisfactory to the OWNER to indemnify the OWNER against any resulting lien. If any such lien remains unsatisfied after all payments are made, the CONTRACTOR shall refund to the OWNER all monies that the latter may be compelled to pay in discharging such lien, including all costs and attorney's fees.
- B. Additional requirements for Project closeout shall include submittal, (if not previously submitted) of the following:
  - 1. Evidence of compliance with requirements of governing authorities.
    - a. Certificate of occupancy.
    - b. Certificates of inspection required for mechanical and electrical systems.
  - 2. Project Record Documents: In accordance with Section 01720 - Project Record Documents.
  - 3. Operation and Maintenance Data: In accordance with Section 01730 - Operation and Maintenance Manuals.
  - 4. Operator Training: In accordance with Section 01731 - Service of Manufacturer's Representative.
  - 5. Warranties and Bonds: In accordance with Section 01740 - Warranties and Bonds.
  - 5. Evidence of payment of debts and claims in accordance with conditions of the Contract (see attached form at end of this section).
  - 7. Consent of Surety Company to final payment (see attached form at end of this section).
  - 8. Evidence of release of liens in accordance with conditions of the Contract (see attached form at end of this section).

#### PART 2 PRODUCTS

Not used.

### PART 3 EXECUTION

Not used.

SECTION 01701

CONTRACTOR'S AFFIDAVIT  
OF  
PAYMENT OF DEBTS AND CLAIMS

OWNER: CITY OF NEWTON  
DEPARTMENT OF PUBLIC WORKS  
NEWTON CITY HALL,  
1000 COMMONWEALTH AVENUE  
NEWTON, MA 02459

CONTRACT FOR: CONSTRUCTION OF  
WABAN HILL RESERVOIR IMPROVEMENTS

CONTRACT DATE: \_\_\_\_\_

State of: MASSACHUSETTS

COUNTY OF: MIDDLESEX

The undersigned hereby certifies that, except as listed below, he has paid in full or has otherwise satisfied all obligations for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contract referenced above for which the OWNER or his property might in any way be held responsible.

EXCEPTIONS: (If none, write "None". If required by the OWNER, the CONTRACTOR shall furnish bond satisfactory to the OWNER for each exception.)

CONTRACTOR:

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 2011.

Notary Public: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

SECTION 01701

CONSENT OF SURETY COMPANY  
TO  
FINAL PAYMENT

OWNER'S CONTRACT NO.: \_\_\_\_\_ AGREEMENT DATE: \_\_\_\_\_

ENGINEER' PROJECT NO.: \_\_\_\_\_ BOND NUMBER: \_\_\_\_\_

**CONTRACT TITLE: CONSTRUCTION OF WABAN HILL RESERVOIR IMPROVEMENTS**

TO: CITY OF NEWTON  
DEPARTMENT OF PUBLIC WORKS  
NEWTON CITY HALL  
1000 COMMONWEALTH AVENUE  
NEWTON, MA 02459

FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

In accordance with the provisions of the Contract between the OWNER and the CONTRACTOR as indicated above, the \_\_\_\_\_ (Surety) on the bond of \_\_\_\_\_ (Contractor) hereby approves of the final payment to the CONTRACTOR, and agrees that final payment to the CONTRACTOR shall not relieve the Surety Company of any of its obligations to the CITY OF NEWTON (Owner) as set forth in the said Surety Company's Bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this \_\_\_\_\_ day of \_\_\_\_\_ 2011.

\_\_\_\_\_  
(Surety Company)

\_\_\_\_\_  
(Signature of Authorized Representative)

\_\_\_\_\_  
(Title)

Attest: (Seal)

Note: Power of Attorney should be attached in instances where same applies.

SECTION 01701

CONTRACTOR'S FINAL  
LIEN WAIVER

OWNER: CITY OF NEWTON  
OF PUBLIC WORKS  
NEWTON CITY HALL  
1000 COMMONWEALTH AVENUE  
NEWTON, MA 02459

CONTRACT FOR: CONSTRUCTION OF DEPARTMENT  
WABAN HILL RESERVOIR IMPROVEMENTS

**CONTRACT DATE:** \_\_\_\_\_

State of: MASSACHUSETTS

COUNTY OF: MIDDLESEX

APPLICATION FOR FINAL PAYMENT

The undersigned hereby certifies that the amount owed set forth below constitutes the entire value of all work performed and services rendered by, through or under the undersigned with respect to the project not heretofore paid for up to and including the period covered by the above Application for Final Payment; that all work covered by such Application has been incorporated into the project and title thereto has passed to the OWNER free and clear of all liens, claims, security, interests or encumbrances; and that no work covered by such Application has been acquired subject to an agreement under which any interest therein or an encumbrance thereon is retained by the seller or any other person. In consideration of payment of the requisition, the undersigned hereby releases the OWNER from all claims of lien which the undersigned has regarding the Project.

The undersigned, in order to induce the OWNER to pay the requisition, hereby represents that it has paid or will pay from the proceeds of the requisition all sums due to those parties who have performed work or provided materials to the undersigned in connection with the Project, and that it will on request of the OWNER provide written evidence of the discharge by the undersigned of its obligations to such parties.

Executed under seal as of this \_\_\_\_\_ day of \_\_\_\_\_ 2011.

Amount Owed to CONTRACTOR by  
OWNER as Final Payment:

CONTRACTOR:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\$ \_\_\_\_\_

\_\_\_\_\_  
Duly Authorized

Amount Unpaid From Previous  
Application for Payment:

\$ \_\_\_\_\_

SECTION 01701

CONTRACTOR'S FINAL  
LIEN WAIVER  
(Con't)

Then personally appeared, the above named \_\_\_\_\_  
and acknowledged the foregoing to be the free act and deed of the above named CONTRACTOR, before me.

Subscribed and sworn to on the \_\_\_\_\_ day of \_\_\_\_\_, 2011.

Notary Public: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

END OF SECTION

## SECTION 01712

### FINAL CLEANING

#### PART 1 GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Final cleaning of project.
- B. Executing final cleaning prior to inspection for Substantial Completion of the Work.

#### PART 2 PRODUCTS

##### 2.01 CLEANING MATERIALS

- A. Use materials which will not create hazards to health or property, and which will not damage surfaces.
- B. Use only materials and methods recommended by manufacturer of material being cleaned.

#### PART 3 EXECUTION

##### 3.01 CLEANING

- A. In addition to removal of debris and cleaning specified in other sections, clean interior and exterior exposed-to-view surfaces.
- B. Remove temporary protection and labels not required to remain.
- C. Clean finishes free of dust, stains, films and other foreign substances.
- D. Clean transparent and glossy materials to a polished condition; remove foreign substances. Polish reflective surfaces to a clear shine.
- E. Vacuum clean carpeted and similar soft surfaces.
- F. Clean resilient and hard-surface floors.
- G. Clean surfaces of equipment; remove excess lubrication.
- H. Clean plumbing fixtures to a sanitary condition.
- I. Clean permanent filters of ventilating equipment and replace disposable filters when units have been operated during construction; in addition, clean ducts, blowers, and coils when units have been operated without filters during construction.
- J. Clean light fixtures and lamps.
- K. Remove waste, foreign matter, and debris from roofs, gutters, area ways, and drainage systems.

- L. Remove waste, debris, and surplus materials from site. Clean grounds; remove stains, spills, and foreign substances from paved areas and sweep clean. Rake clean other exterior surfaces.

END OF SECTION

## SECTION 01740

### WARRANTIES AND BONDS

#### PART 1 GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Preparing and submitting of warranties and bonds.

##### 1.02 FORM OF SUBMITTALS

- A. Bind in commercial quality 8-1/2 x 11 inch, three-ring side binders, with hardback, cleanable, plastic covers.
- B. Label cover of each binder with typed or printed title "WARRANTIES AND BONDS", with title of Project; name, address and telephone number of CONTRACTOR; and name of responsible principal.
- C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Contract Documents, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- D. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

##### 1.03 PREPARATION OF SUBMITTALS

- A. Obtain warranties and bonds, executed in duplicate by responsible subcontractors, suppliers, and manufacturers within ten (10) days after completion of the applicable item of work. Except for items put into use with OWNER'S permission leave date of beginning of time of warranty open until the date of substantial completion is determined. All warranty coverage shall be extended directly to the benefit of the OWNER.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.

##### 1.04 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during construction with OWNER'S permission, submit documents within ten (10) days after acceptance.
- B. Make other submittals within ten (10) days after date of substantial completion, prior to final application for payment.
- C. For items of Work when acceptance is delayed beyond date of substantial completion, submit within ten (10) days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 06650

SOLID POLYMER FABRICATIONS  
(CENTRAL CORE STANDPIPE FRP COVER)

PART 1 GENERAL

1.01 DESCRIPTION

- A. This specification shall govern for all work necessary to furnish a flat fiberglass cover, including all anchorage hardware that may be required to provide a complete installation of the tank cover.

1. In general the work of this Section includes all labor, equipment, materials and all operations required to furnish and install fiberglass flat cover for the 90-inch diameter Central Core Standpipe.

1.02 RELATED WORK

- A. Documents affecting work of this Section include but are not necessarily limited to General Conditions, Supplementary Conditions and the Sections in Division 1 of these specifications.

1.03 SUBMITTALS

- A. Comply with the pertinent provisions of Section 01300.
- B. Shop drawings shall be complete with all dimensions, anchor locations, details of connecting piping and the size and locations of any required openings.
- C. Specifications for all components shall be provided.
- D. Product Data: Within 30 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
1. Materials list of items proposed to be provided under this Section.
  2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
  3. Details of the major fabricated components showing the arrangement of components and labeled with component sizes and materials of construction.
  4. Structural design calculations for all components.
  5. Manufacturer's recommended procedures for job site storage of equipment, handling and erection.
- E. Manufactures previous project list detailing 10 years of experience. List shall include contact information for previous installation references.

1.04 PRODUCT HANDLING

- A. Deliver and Storage of Materials: All materials shall be delivered to the job site in an undamaged condition. Materials shall be protected before and after delivery.
- B. Preparation for Shipment: All pieces shall be delivered in the largest practical sizes for field assembly by the contractor. Individual pieces shall be permanently tagged and cross-referenced with information on the manufacturer's erection and assembly drawings.

- C. Storage of Material: All material stored on the job shall be protected and maintained in accordance with the manufacturer's recommendations. Materials may be stored outdoors on pallets or other wooden supports providing for the proper support and drainage. Material shall not be allowed to contact the ground directly.
- D. Defective or damaged material shall be replaced by the Contractor at no additional cost to the Owner. Materials delivered to the site shall be stacked off the ground in such a manner as to insure proper drainage, ventilation and protection from soil or the weather.

## 1.05 QUALITY ASSURANCE

- A. Qualifications: Flat cover manufacturer must have a minimum of TEN (10) years history of successful installations of similar size. Past job list with customer contact information will be required. Subject to compliance with requirements, manufacturers offering products which may be incorporated are limited to: Fiberglass Fabricators Inc. of Smithfield, RI or approved equal.
- B. Manufacturer's Quality Control: All fabrication shall be carefully inspected at the site of fabrication by factory inspectors who shall use whatever means necessary to assure the proper fit of all field connections and compliance with all material and fabrication requirements of the specifications.
- C. Warranty: A general warranty of the fabricated flat cover for materials and workmanship shall be for a minimum of one (1) year after installation with a maximum of 18 months.

## PART 2 PRODUCTS

### 2.01 COVERS AND HATCHES

- A. The cover shall be self-supporting interlocking UV NON SKID surface. The configuration shall cover the 90-inch diameter Central Core Standpipe unsupported per loading conditions specified below. Easy removal of the cover shall be provided. The cover shall be hinged with 316 SS continuous hinges to open from either side of the existing catwalk. All hardware to be 316 stainless steel construction. FRP Support structure to be factory assembled such that no field installation is required and plank sections and structural factory built as one unit. Foam core with lay up FRP material is not acceptable.
  - 1. Applicable sections of the following standards shall apply to the fiberglass covers as indicated in this specification:
    - a. ANSI/ASCE 7-98 (Jan 2000) or later "Minimum Design Loads for Buildings and Other Structures"
    - b. ANSI/AWWA-F102-91 Section 5 "Standard Recommended Practice for Classifying Visual Defects in Glass Reinforced Laminates"
  - 2. Cover shall be designed to sustain the following load combinations in accordance with ANSI/ASCE 7-98 (Jan 2000) or later:
    - a. Environmental (or uniform) load: 35 PSF plus Dead Load with an L/360 (planks)
    - b. Seismic zone requirements per ANSI/ASCE 7-98 or later for the designated area.
    - c. Design safety factor of 4:1 for allowable stresses shall be met for all load combinations.
  - 3. Horizontal loads shall be contained by both support structures and panel sections.
  - 4. The design and installation shall incorporate provisions for thermal expansion and contraction over an ambient air temperature range of -30 to 120 deg. F.
- B. Design Calculations.
  - 1. As part of the shop drawing submittals for the cover sections, the fabricator shall supply any and all analyses pertinent to the composite design. The calculations shall include standard strength of materials approaches and computerized finite element analyses of sections where conventional methods do not apply. Furthermore, for the calculated loads, a complete

laminates analysis shall be submitted identifying the various factors of safety for the proposed laminate schedule. Factors of safety shall be evaluated using criteria such as Tsai-Hill or equivalent theories.

2. The evaluation of deflection and stresses on panel sections under uniform loading shall incorporate numerical analysis calculations.
3. The calculations shall fully consider the access hatches herein after required for each tank cover segment.
4. A written narrative that clearly states all of the basic design assumptions and parameters shall accompany the computerized calculations.
5. Approval by the engineer shall not relieve the manufacturer of responsibility for providing materials and design conforming to the intent of these specifications.
6. Complete structural design calculations and drawings shall be submitted as required herein. Design calculations and drawings must be approved and stamped by a registered Professional Engineer in the state of manufacture.

C. Physical Properties: (minimum)

Property @ 70 deg.F	Value	Test Method
Tensile Strength Pultruded – 3” plank	31,100 psi	ASTM D 638
Tensile Strength Pultruded - beam	30,000 psi	ASTM D 638
Tensile Strength molded	26,500 psi	ASTM D 638
Tensile Modulus Pultruded – beam & 3” plank	2,500,000 psi	ASTM D 638
Tensile Modulus molded	1,550,500 psi	ASTM D 638
Compressive Strength Pultruded - beam	30,000 psi	ASTM D 695
Compressive Strength molded	26,500 psi	ASTM D 695
Compressive Modulus Pultruded - beam	2,500,000 psi	ASTM D 695
Compressive Modulus molded	1,500,000 psi	ASTM D 695
Flexural Strength Pultruded - beam	30,000 psi	ASTM D 790
Flexural Strength molded	30,000 psi	ASTM D 790
Flexural Modulus Pultruded - beam	1,600,000 psi	ASTM D 790
Modulus Elasticity Pultruded - beam	2,500,000 psi	Full Section
Flexural Modulus molded	1,550,500 psi	ASTM D 790
Flexural Strength Pultruded - 3” plank	24,500 psi	ASTM D 790
Flexural Modulus Pultruded - 3” plank	885,000 psi	ASTM D 790
Short Beam Shear – 3” plank	3,190 psi	ASTM D 2344
Shear Strength Pultruded - beam	4,500 psi	ASTM D 2344
Shear Strength molded	12,500 psi	ASTM D 732
Shear Modulus Pultruded - beam	425,000 psi	-
Barcol Hardness Molded	40	ASTM D 2583
Barcol Hardness Pultruded	45	ASTM D 2583
Glass Content	45%	ASTM D 2584
Water Absorption	.09% Max	ASTM D 570
Coefficient of Linear Thermal Expansion (in/in/°F) - Pultruded	4.4 x 10-6	ASTM D 696
Coefficient of Linear Thermal Expansion (in/in/°F) - Molded	15 x 10-6	ASTM D 696

## 2.02 MATERIALS

- A. All materials shall be new and shall be specially designed or selected for the function and service specified. No material may be used in the project that has not been approved by the engineer. Approval for incorporation into the project will be made only after the review of shop drawings and specifications.
- B. Resin: The resin shall be a corrosion resistant Isophthalic Polyester, which has been determined to be acceptable for the service conditions.
  - 1. Resins shall contain no bulk extenders of filler, except for viscosity control. (Hand lay-up only)
  - 2. Ultraviolet-light inhibitors shall be added to the laminate.
- C. Glass: The reinforcing materials shall be type E glass with a chrome or silane finish, and a binder compatible with the resin. Surfacing veil shall be type C veil with a binder containing silane and compatible with the resin. (Hand lay-up only)

## PART 3 EXECUTION

### 3.01 Fabrication

- A. The installation contractor shall confirm all field measurements with the approved flat cover fabrication drawing before fabrication is initiated.

### 3.02 ASSEMBLY

- A. The manufacturer shall pre-assemble a minimum of three (3) equal cover segments to a full scale layout to insure proper fit and assembly. If cover consists of less than (3) equal segments, the manufacturer pre-assembles the cover in its entirety.
- B. Fiberglass cutouts from cover segments shall be identified and shipped with cover. Cutouts will be used by the engineer to determine proper thickness, glass content and laminate sequence (Hand lay-up only).
- C. Assembly of panel segments will be such as to allow all bolting to be performed from the exterior of cover.
- D. Anchor bolts, assembly hardware, rail nut plates, hinges and lock sets shall be type 316 stainless steel.

### 3.03 INSTALLATION

- A. Assembly shall be in strict accordance with the manufacturer's drawings and instructions.

END OF SECTION

## SECTION 09872

### PAINTING STEEL TANK

#### PART 1 GENERAL

- 1.01 Under this section, the Contractor shall provide the necessary labor, materials and equipment necessary for the proper preparation of all exterior and interior surfaces of the steel central core standpipe and for repainting as specified below. The central core standpipe is within the existing Waban Hill Reservoir central core building on City of Newton property on Waban Hill Road.
- 1.02 These specifications shall refer to all tank surfaces including tank walls, bolts and overflow.
- 1.03 The Contractor shall remove all remaining water, all sediment and debris from the tank bottom after it has been drained by City personnel.
- 1.04 All surface preparation, materials, application and workmanship for painting of the Tank shall be in accordance with the American Water Works Standard for Painting Steel Water Storage Tanks, AWWA D-102, latest edition, the Steel Structure Painting Council SSPC-PAI-82 and the paint manufacturer's recommendation.
- 1.05 The Contractor shall coordinate all his work with the Owner and the Engineer.
- 1.06 The central core has a capacity of approximately 3,500 gallons and is 90 inches in diameter and 12.5 feet overall height. It has five (5) 90-inch diameter sections bolted together, 24-inch diameter inlet and outlet piping and associated valves.
- 1.07
  - A. The tank has a hinged painted wood cover that protects the 90-inch diameter opening and an additional section to cover the overflow. The cover shall be removed and properly disposed and replaced with a fiberglass hinged cover.
  - B. The tank is supported by a brick foundation that is to remain intact.

#### PART 2 PRODUCTS

- 2.01 Abrasive blasting equipment shall be in good working condition and shall have ample capacity to provide a minimum of 100 psi of compressed air at the nozzle to effectively clean the surfaces. Adequate separators and traps shall be provided to remove any traces of oil or water vapor from the air supply.
- 2.02 Abrasive grit blasting to be used. All other types of material to be used in abrasive blasting shall be submitted to the Engineer for approval. Holliston sand will not be permitted.
- 2.03 WASTE MINIMIZATION PROCESS
  - A. The Contractor may use Blastox Process Additive in the abrasive media to reduce the possibility of having to dispose of the debris as hazardous waste. The media supplier is to pre-mix the Blastox with the blasting media at the recommended ratios. **On site mixing will not be allowed.**
  - B. BlastoxJ process additive shall be a propriety chemical blend as manufactured by the TDJ Group, Inc., Dubuque, IA or approved equal.
- 2.04 The painting materials of TNESEC Company have been established as standards for this work. Equal paint systems of other manufacturers are also acceptable. Interior paint shall be on National Sanitation Foundation (NSF) list of approved coatings relative to solvent exterior extractables. No lead containing pigments shall be allowed.
- 2.05 Colors shall be selected by the Owner.

- 2.06 All materials shall be brought to job site in original sealed containers. They shall not be used until the Engineer has inspected contents and obtained data from information on containers or label. Materials exceeding storage life recommended by the manufacturer shall be rejected.
- 2.07 All coatings and paints shall be stored in enclosed structures to protect them from weather and excessive heat or cold. Flammable coatings or paint must be stored to conform with Local, County, State and Federal safety codes for flammable coating or paint materials. At all times coatings and paints shall be protected from freezing.

## 2.08 PAINT SYSTEMS

- A. The exterior system shall be a 3 coat paint system.

		<u>DFT Range</u>
a.	Prime Coat Tnemec 94H2OHydro zinc	2.5 – 3.5 mils
b.	Second Coat Tnemec N69	3.0 – 4.0 mils
c.	Third Coat Tnemec N69	<u>3.0 – 4.0 mils</u>
	Total	8.5 - 11.5 mils

- B. The interior system shall be a 2 coat epoxy paint system.

		<u>DFT Range</u>
a.	Prime Coat 94-H2O Hydro zinc	2.5 - 3.5 mils
b.	Second Coat Series 22 FC Pota-Pox 100	<u>25.0 – 35.0 mils</u>
	Total	27.5 – 38.5 mils

## 2.09 CENTRAL CORE STANDPIPE COVER

- A. The replacement cover shall be manufactured from fiberglass and constructed with a hinge for access into the central core standpipe. The shape and hinge location shall match the existing cover. See Section 06650 for cover specifications.

## PART 3 EXECUTION

### 3.01 GENERAL

- A. The Contractor is responsible for providing environmental protection including controlling airborne dust along with noise levels. All operations are to conform to all federal, state and local regulations. The Contractor in submitting his bid acknowledges that he is aware of containment and disposal requirements and that he accepts the responsibility for providing environmental protection to the satisfaction of the Owner and regulatory agencies.
- B. The Contractor shall protect and seal all electronics. The Contractor shall use a dust collector with a minimum rating of 20,000 cfm.

### 3.02 FIELD COATINGS

- A. The exterior requires a complete removal of the coatings using SSPC-SP#6 Commercial Blast of the latest revision. Given the location of the tank a strict containment protocol is required. At a minimum, a containment system that encapsulates the immediate work area or the entire structure shall be used to ensure collection of all heavy cleaning particulate generated so as to minimize any impact on the surrounding area. This containment system should conform to at least a Class 1A system as outlined in SSPC-Guide-6 (CON) with ground tarps laid out to ensure collection of all particulate.
- B. All interior surfaces shall be cleaned by sandblasting per SSPC-SP #10 Near White Blast of latest revision.
- C. All primed areas are to be cleaned of all grease, oily material and all other foreign matter.

- D. All surfaces blasted cleaned shall be painted the same day before any evidence of rusting or discoloration. Any cleaned and unprimed surfaces that develop rust shall be reblasted as required prior to prime painting.

### 3.03 PAINT APPLICATION

- A. The paint shall be applied at the rate and in the manner shall be corrected by the application of an additional coat or coats of paint.
- B. Paint shall not be applied when the temperature of the steel or paint is below manufacturer's recommendations.
- C. Paint shall not be applied in rain, snow, fog or mist or when the steel surface temperature is within 5°F of the dew point, resulting in condensation or when the relative humidity is over 85%.
- D. All bolts, angles, anchors, pits, etc. shall be painted by brush.
- E. All painting shall be done in accordance with SSPC Paint Application Specification No. 1 with latest revisions.
- F. No thinner or solvent shall be added without approval of the Engineer.
- G. Interior paint system shall be fully cured before water is added. Forced ventilation shall be used for 5 days after which a "solvent rub test" shall be conducted to verify the coating is fully cured. If not, additional time will be allowed for curing and then retested.
- H. All weld scale, slag, flux and rust deposits shall be completely removed prior to applying paint.
- I. If required heating will be used to help sure the interior paint.

### 3.04 TESTING AND DISINFECTION

- A. The finish coating on all surfaces shall be completely without defects permitting moisture penetration when tested according to the low voltage, wet sponge method. Deficiencies in the continuity of the coating shall be corrected by applying additional finish coats at the expense of the Contractor.
- B. Thickness and Holiday Checking: Thickness of coatings and paint shall be checked with a non-destructive, Type I or Type II Coating Thickness Gage. Coating integrity of interior coated surfaces shall be tested with an approved inspection device. Holiday detection shall be performed prior to application of finish coats by use of a low voltage holiday detector. All pinholes shall be marked, repaired in accordance with the manufacturer's printed recommendations and retested. No pinholes or other irregularities will be permitted in the final coating. Deficiencies in the continuity of the coating shall be corrected by applying additional finish coats at the expense of the Contractor.

Dry film thickness gauges and holiday detectors shall be made available for the Engineer's use at all times until final acceptance of application. Holiday detection devices shall be operated in the presence of the Engineer. An Elcometer shall be supplied by the Contractor and available for use at the site at all time. All applied coatings shall be measured per requirements of SSPC-PA2.

- C. A minimum of seven days following the application of the final coat on the interior wet surface shall be allowed before the tank is sterilized or filled with water.
- D. The tank shall be disinfected per the requirements of AWWA C652, latest edition. "Disinfection of Water Storage Facilities". Chlorination Method No. 2 or No. 3 may be used.
- E. The Owner, free of charge to the Contractor, shall furnish sufficient water for testing and disinfection. The water shall be at proper pressure to fill the tank to the maximum working level. Any leaks in the tank that are disclosed by this test shall be repaired by gouging out defective areas and rewelding. No repair work shall be

done on any joint unless the water in the tank is at least four feet below the joint being repaired. Any paint damaged by repairs shall be properly restored.

- F. If chlorinated water is to be discharged into the environment, the Contractor is required to obtain all of the required permits to perform this work. The Owner shall not take any responsibility for this work.
- G. Upon completion of the disinfection procedure, the Contractor shall arrange and pay for bacteriological and VOC (Method 524) testing of water from the tank. The tank shall not be put in service until safe test results are obtained. Retesting shall be performed by the Contractor at no cost to the Owner.

### 3.05 REPAIRS

- A. The Contractor shall make the following improvements/repairs to the interior of the central core standpipe:
  - 1. All interior surfaces should be abrasive blast clean to an SSPC-SP #6 commercial blast grade to expose the extent of metal loss taking place. The Contractor is responsible for providing all necessary piping support during the refinishing process to ensure the integrity of the lead joints of the interior piping.
  - 2. All areas of metal loss representing a 30% or greater reduction in plate thickness should be spot welded so as to bring the pitted surface at least flush with the original plat surface then ground smooth to ensure continuity of the applied coating system. An estimated 500 pits will require welding.
  - 3. All areas of concentrated metal loss should be patched with steel plates conforming to the contour of the area of the tank to be repaired. The size and shape of the patches will be determined in the field, however in no case should the thickness of the patch be less than ¼ inch. An estimated 5 square feet of ¼ inch thick patch plates will be required.
  - 4. All interior surfaces should then be abrasive blast clean to an SSPC-SP #10 Near-White metal grade followed by the application of the above specified 100% solids epoxy coating system.
  - 5. Provisions for the application of up to 5 gallons of 100% solids epoxy pit filler should be included in the scope of work to be performed.
- B. The Contractor shall make the following improvements/repairs to the exterior surfaces of the central core standpipe:
  - 1. All exterior surfaces should be abrasive blast clean to an SSPC-SP #6 commercial blast grade.
  - 2. Steel patch plates may be required along the bottom shell ring at the area of current leakage, however the extent of patching will not be known until after the affected surfaces are abrasive blast cleaned.
  - 3. All exterior surfaces should be coated with high solids epoxy applied as specified above.

4. Appropriate ventilation requirements should be established to prevent fugitive dust from contaminating the adjacent reservoir tanks.

### 3.06 CERTIFICATION AND GUARANTEE

- A. The Contractor shall submit to the Engineer immediately upon completion of the job, certification from the manufacturer indicating that the quantity of each coating purchased was sufficient to coat all surfaces properly. Such certification shall make reference to the square footage figures provided to the manufacturer and the Engineer by the Contractor.
- B. The coatings applied under this contract shall be guaranteed against defects and poor workmanship for a period of one year after acceptance.

### 3.07 MINIMUM SAFETY REQUIREMENTS

- A. The Contractor shall provide for the safety of all concerned with the project. This section of the specifications is intended to cover all work in sandblasting, painting and repairs, and repairs of the tank. The Contractor shall meet all OSHA requirements.
- B. The interior of the tank shall be adequately lighted at all times during the painting process, using banks of floodlights totaling 500 watts for each staging or work area. Lights are to be so arranged as to illuminate the immediate area where the work is in progress. Electric power is available at this site.
- C. Forced explosion proof ventilation is to be used in curing of coatings. Blowers shall operate overnight during drying times of complete applications. All openings in the tank shall be kept open whenever possible during the progress of the work.
- D. The Contractor agrees, as an essential part of the contract, to provide the necessary materials, labor, and equipment to provide for the safety of the engineers, inspectors, his or its employees, partners, contracting officials, etc., and in any and all cases to furnish at least, but not limited to, these "Minimum Safety Requirements."
- E. It shall be the responsibility of the contractor and his duly authorized employees to maintain high safety standards on the project, and said responsibilities lie solely with the contractor and his employees in the event of any personal injury or property damage.
- F. It shall be the responsibility of the Contractor's supervisory personnel on the job site, to inspect prior to use, such equipment including planks, brackets, cables, slings, clamps, etc., to be used in the construction of all scaffolds, and said supervisory personnel shall produce a legible, handwritten in proper English, signed statement, stating that the inspection has been completed and shall itemize articles of equipment inspected, reporting on the condition of each article. Only equipment so inspected, recorded as in good condition, and in keeping with all laws and codes, Federal, State and local, shall be used on the Project.
- G. It shall be the responsibility of the Contractor, or supervisory personnel, to direct and inspect personally the placement and/or use of said approved equipment. Strict adherence to said Federal, State and local laws and regulations will be mandatory and any infractions corrected immediately.
- H. The Contractor or supervisory personnel shall inspect daily all scaffolds, walkways, ladders, etc., and all related work areas for hazards, such as loose tools on scaffolds, improperly placed planks, missing guard rails, openings in scaffolds for the purpose of ascent and/or descent which are not properly safeguarded, and shall provide, place and maintain such containers and/or equipment as are necessary to correct unsafe conditions.
- I. Persons employed on subject project shall not be allowed to practice unsafe methods of ascent or descent. No person shall ride load lines or other equipment unless safer methods are unavailable. Ladders shall be provided for access and not be used in production work.

- J. All ladders shall be securely anchored into place and shall remain at the point in the scaffold provided for access and not be used in production work.
- K. Tools, fit-up devices, waste or used material shall be lowered in a suitable container. No item shall be thrown from any point on the work.
- L. Safety glasses, hard hats, and safety belts shall be provided for all persons engaged in production work or required to work in related areas, and shall be worn by personnel in the work areas.
- M. The Contractor or supervisory personnel shall remove from the job site all faulty equipment and shall remove any person who has working habits which jeopardize the safety of himself or fellow workers.
- N. The Contractor shall provide, as part of general equipment on the job site, sufficient amounts of properly selected ropes, slings, belts, respirators, goggles, hoods, hard hats, gauntlets, fresh air masks, etc., to safeguard properly each workman on subject project for use by the engineers and inspectors and shall provide additional equipment as may be needed to maintain high safety standards under unusual or unforeseen conditions and situations.
- O. No employee shall be required or allowed to wear any breathing apparatus or respirator which has been worn by another, unless such equipment is properly sterilized prior to its use.
- P. Replacement filters, cartridges, etc., as required by the types of equipment used, shall be available to workmen on the job site at all times.
- Q. The ground man shall inspect periodically adjoining property, buildings, automobiles, etc., to determine if they are being damaged by falling debris, paint drops or spray, and upon finding such damage shall inform workmen immediately so as to prevent further damage.
- R. The ground man shall keep the area free of accumulated waste and in a neat and workmanlike condition at all times. Debris shall be removed from the site each day at the end of work and be properly disposed of.

### 3.08 ABRASIVE BLAST CLEANING RESIDUALS HANDLING

#### A. General

- 1. This section describes the requirements for collection, storage, sampling, testing, classification and disposal of paint abrasive blast cleaning residuals that have been removed from this tank. The Contractor is to follow the SSPC-Guide 7 (DIS) Guide for the disposal of lead-contaminated surface preparation debris (if any). Collection, storage, sampling, testing and disposal of abrasive blasting residuals from portions of the tank which do not contain lead-based paints is the responsibility of the Contractor and these materials shall be physically segregated from lead paint residuals at all times.
- 2. This project is subject to the U.S. Environmental Protection Agency (EPA) Regulations, with particular attention to the following sections contained in 40CFR 260 thru 268.
 

40 CFR 260	Hazardous Waste Management System – General
40 CFR 261	Identification and Listing of Hazardous Wastes
40 CFR 262	Standards Applicable to Generators of Hazardous Wastes
40 CFR 263	Standards Applicable to Transporters of Hazardous Wastes
40 CFR 268	Land Disposal Restrictions
- 3. This project is also subject to the U.S. Department of Transportation (DOT) with particular attention to Subchapter C – Hazardous Materials Regulation (49 CFR Parts 171 – 177).

#### B. Collection

1. Upon completion of abrasive blasting work each day or at mutually agreeable intervals the Contractor shall collect all abrasive blast cleaning residuals. Bulk collection as outlined in SSPC-Guide 6 Section 5.2.2.1 will be allowed.

C. Storage

1. The Contractor shall store the material in containers, which comply with Department of Transportation Regulation No. 49 CFR 178 "Shipping Container Specifications". The containers shall be stored on pallets or dunnage in a dry, well drained, secure area beyond the limits of the 100-year floodplain. If the job site does not provide for secure storage the Contractor shall furnish temporary fencing or a box trailer for secure storage. If the job site is entirely within the 100-year floodplain the Owner will designate the required storage location. Once material has been stored, the Owner and/or his representative shall have control over access to the storage area.

D. Sampling, Testing and Disposal

1. The Contractor or his representative shall sample and test paint blasting residuals a minimum of once after the first day of abrasive blast cleaning and once prior to disposal of abrasive blast cleaning residuals. The Inspector shall assist the Contractor or his representative in obtaining the required samples. Two (2) consecutive TCLP tests will be performed on each sample. The results of this testing will be provided to the Owner and will determine subsequent storage, treatment and disposal requirements. If the TCLP testing conducted on the samples collected on the first day of abrasive blasting determine the material to be hazardous, the Contractor shall immediately discontinue the abrasive blasting operation and assist the Owner in an investigation (including additional sampling and TCLP testing) of the reason(s) for the failure of the previously tested and approved abrasive. The results of the investigation shall be used by the Contractor to adjust or revise his containment methods if necessary.
2. The results of the second consecutive TCLP test(s) conducted on the samples collected by the Contractor prior to disposal will determine the disposal requirements. If the test yields leachable lead values of less than 5 ppm the material shall be disposed of by the Contractor in accordance with applicable laws and regulations for non-hazardous solid waste. The Owner shall furnish a written notification in accordance with 40 CFR 268.7 (a)(2)(ii) which is required for disposal. The Contractor shall furnish evidence satisfactory to the Owner that the material has been properly disposed of. Upon approval by Owner, the Contractor may, in lieu of disposal, reuse the material as a raw material for another process.
3. Should the results of the second TCLP test yield leachable lead values in excess of 5 ppm, all materials classified as hazardous, as determined by the aforementioned TCLP Testing or subsequent testing required by RCRA, shall be transported to an approved recycling facility; an approved treatment facility to reduce the leachable concentration levels to below the allowable regulatory limits and disposed in a Local and/or State approved waste landfill. All transporting, recycling, treatment and disposal shall be in strict accordance with Federal and State laws including but not limited to RCRA, TSCA, HMTA, the USEPA and the Commonwealth of Massachusetts regulations. The name of the recycling, treatment and/or disposal facility shall be submitted to the Owner for approval prior to removing any material from the project site. The disposal or recycling facility shall have or shall obtain an identification number from the EPA. This identification number shall be submitted to the Owner for preparation of the "manifest" form.
4. The Contractor shall be responsible for obtaining the proper signatures of the hauler and designated receiving facility on the "manifest" form.

E. Final Cleanup

1. The Contractor will be responsible for removal of all dust and spent abrasive from the interior and/or exterior surfaces of the tank upon completion of the abrasive blasting operations. The use of brooms, vacuums and/or power washers may all be required to insure complete removal of all dust and debris generated by the Contractor.

F. Payment

1. See Section 01025 Measurement and Payment.

END OF SECTION

## SECTION 09900

### PAINTING

#### PART 1 GENERAL

##### 1.01 WORK INCLUDED

- A. Preparing surfaces that are to receive finish.
- 2. Refer to Mechanical, Electrical, Equipment and Architectural Drawings.
- C. Installation, application.
- D. Cleanup.

##### 1.02 SUBMITTALS

- A. Submit color chips for all paint types scheduled to be used on the project.
- B. Submit manufacturer's product data for all paint types scheduled to be used on the project.
- C. Submit manufacturer's preparation and application recommendations for all paint types scheduled to be used on the project.

##### 1.03 DELIVERY, STORAGE AND HANDLING

- A. Deliver paint materials in sealed original labeled containers, bearing manufacturer's name, type of paint, brand name, color designation and instructions for mixing and/or reducing.
- B. Provide adequate storage facilities. Store paint materials at minimum ambient temperature of 45 degrees F in well ventilated area.
- C. Take precautionary measures to prevent fire hazards and spontaneous combustions.
- D. Store all paint and solvents in accordance with state and federal regulations.

##### 1.04 ENVIRONMENTAL CONDITIONS

- A. Environmental conditions shall be in compliance with the manufacturer's recommendations.
- B. Provide adequate continuous ventilation and sufficient heating facilities to maintain required temperature.
- C. Provide minimum 15 foot candles of lighting on surfaces to be finished.

##### 1.05 PROTECTION

- A. Adequately protect other surfaces from paint and damage. Repair damage resulting from inadequate or unsuitable protection.
- B. Furnish sufficient drop cloths, shields and protective equipment to prevent spray or droppings from fouling surfaces not being painted and in particular, surfaces within storage and preparation area.
- C. Place cotton waste, cloths and materials, which may constitute a fire hazard in closed metal containers and remove daily from site.

- D. Remove electrical plates, surface hardware, fittings and fastenings, prior to painting operations. These items are to be carefully stored, cleaned and replaced on completion of work in each area. Do not use solvent to clean hardware that may remove permanent lacquer finish.

## PART 2 PRODUCTS

### 2.01 ACCEPTABLE MANUFACTURERS

- A. Specification is based on material as manufactured by TNEMEC Company, Inc., North Kansas, Missouri.
- B. Substitutions: Material of the equal quality, function and performance may be proposed for substitution by following the procedures in Section 01630.

### 2.02 MATERIALS

- A. Paint and Fillers: Type and brand listed herein.
- B. Paint Accessory Materials: (Linseed oil, shellac, turpentine and other materials not specifically indicated herein but required to achieve the finishes specified). Materials are to be of high quality and approved manufacturer.
- C. Paints to have good flowing and brushing properties and be capable of drying or curing free of streaks or sags.

## PART 3 EXECUTION

### 3.01 INSPECTION

- A. Thoroughly examine surfaces scheduled to be painted prior to commencement of work.
- B. Correct defects and deficiencies in surfaces which may adversely affect work of this section.

### 3.02 PREPARATION OF SURFACES

- A. Surface preparation shall be in full compliance with the manufacturer's recommendations.
- B. Remove surface contamination and oils from galvanized surfaces and wash with solvent. Apply coat of etching type primer.
- C. Remove dirt stains, loose mortar, scale, powder and other foreign matter from concrete and concrete block surfaces, which are to be painted.
- D. Remove grease, rust, scale, dirt and dust from steel and iron surfaces. Where heavy coatings of scale are evident, remove by wire brushing, sandblasting or any other necessary method. Ensure steel surfaces are satisfactory before paint finishing. If shop primers are incompatible with painting systems submitted, remove shop priming and reprime with a compatible primer.
- F. Clean unprimed steel surfaces, ensuring weld joints, bolts and nuts are similarly cleaned. Repair defects, if any, which appear after prime painting.
- G. Sand and scrape shop primed steel surfaces to remove loose primer and rust. Feather out edges of all chipped areas to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime all bare steel surfaces before finished paint coats are applied.

### 3.03 APPLICATIONS

- A. Apply each coat at proper consistency.

- B. Sand lightly between coats to achieve required finish.
- C. Do not apply finishes on surfaces that are not sufficiently dry.
- D. Allow each coat of finish to dry before following coat is applied, unless directed otherwise by manufacturer.

#### 3.04 MECHANICAL, ELECTRICAL AND PROCESS EQUIPMENT

- A. Refer to mechanical and electrical sections with respect to painting and finishing requirements, color coding and identification banding of equipment, ducting, piping and conduit.
- B. Remove grilles, covers and access panels for mechanical and electrical systems from location and paint separately.
- C. Finish paint primed equipment to color selected.
- D. Prime and paint insulated and bare pipes, conduits, boxes, insulated and bare ducts, hangers, brackets, collars and supports, except where items are plated or covered with a pre- finished coating.
- E. Replace identification markings on mechanical or electrical equipment when painted over or spattered.
- F. Paint exposed conduit and electrical equipment. Color and texture to match adjacent surfaces.
- G. Paint both sides and edges of plywood backboards for electrical equipment before installing backboards and mounting equipment on them.
- H. Color code equipment, piping, conduit and exposed ductwork.

#### 3.05 CLEANING

- A. As work proceeds and upon completion, promptly remove paint where spilled, splashed or spattered.
- B. During progress of work keep premises free from any unnecessary accumulation of tools, equipment, surplus materials and debris.
- C. Upon completion of work leave premises neat and clean, to the satisfaction of ENGINEER.
- D. Dispose of all paint and solvents in accordance with state and federal regulations.

#### 3.06 PAINT SYSTEMS

- A. Provide the following paint systems for the various substrate, as indicated. All dry film thicknesses (DFT) are called for as total mils per coat specified and are considered minimums. ENGINEER to select colors.
- B. Interior:
  - 1. All interior metals, including process piping, and valves:
    - 1<sup>st</sup> Coat: Prime coat Tnemec 94 H2O Hydro Zinc (2.5 – 3.5 mils DFT)
    - 2<sup>nd</sup> Coat: Tnemec N69 (3.0 – 4.0 mils DFT)

3<sup>rd</sup> Coat: Tnemec N69 (3.0 – 4.0 mils DFT)

### 3.07 PREPARATION AND PRIMING

- A. Condition of Surfaces: Painting shall start only after complete assembly of equipment components unless otherwise permitted by the ENGINEER in writing. Examine all surfaces to be painted for conditions that will adversely affect the work and which cannot be put into an acceptable condition as hereinafter specified under "Preparation". Do not proceed with surface preparation or the application of coatings until conditions are suitable.
- B. Preparation: Remove all rust and scale, oil and other items that may adversely affect paint film adhesion. Preparation shall include sandblasting.
1. Interior Ferrous Metals: The following surface preparation specifications of Steel Structures Painting Council are required for exterior and interior ferrous metals for use in connection with treatment operations and service areas including basins, chambers, clarifiers and interior service areas; non-submersible exposure shall require SSPC-SP-6, Commercial Blast Cleaning; submersible exposure shall require SSPC-SP-10, Near- White Blast Cleaning. Prime coat specified shall be applied within 8 hours after preparation.

### 3.08 PIPING AND EQUIPMENT COLOR CODE

- A. All piping and equipment shall be color coded in accordance with the information listed in Table 1 below and/or as directed by the ENGINEER.

Table 1  
Pipe, Fittings, Valves and Equipment Painting and Labeling Schedule

<b>PART 1 - PIPE/EQUIPMENT DESCRIPTION</b>	<b>Paint Color (Tnemec)</b>	<b>Paint Color Number (Tnemec)</b>
Pipe Line for potable water	True Blue/Safety	11SF
Pipe Line for Drainage	Spearmint Green	09SF
Valves	Dark Bronze	86BR

END OF SECTION

## APPENDIX A

## FIGURES

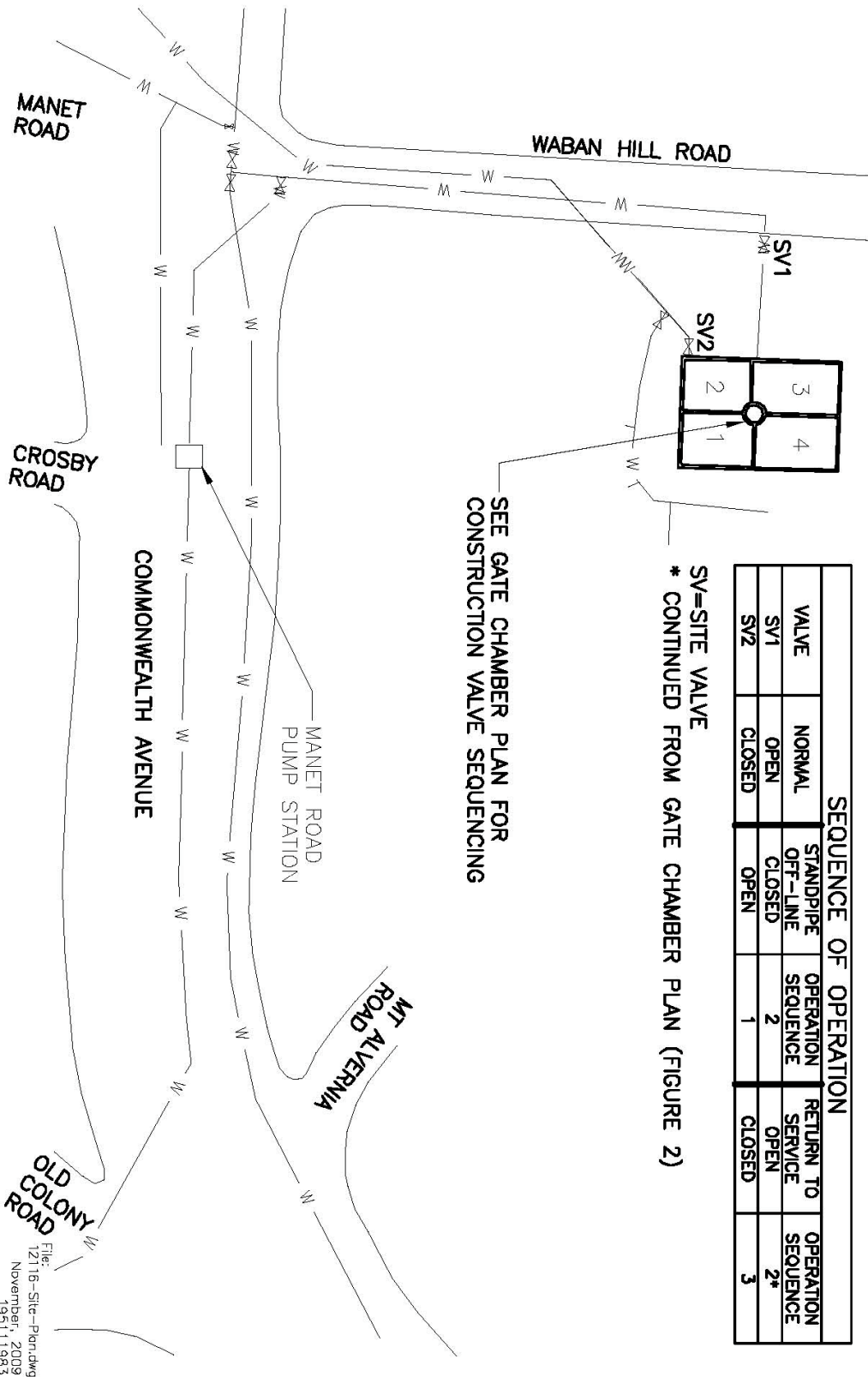


**Legend**

SEQUENCE OF OPERATION				
	STADPIPE OFF-LINE	OPERATION SEQUENCE	RETURN TO SERVICE	OPERATION SEQUENCE
VALVE	NORMAL			
SV1	OPEN	2	OPEN	2*
SV2	CLOSED	1	CLOSED	3

SV=SITE VALVE  
\* CONTINUED FROM GATE CHAMBER PLAN (FIGURE 2)

SEE GATE CHAMBER PLAN FOR  
CONSTRUCTION VALVE SEQUENCING



File:  
12116-Site-Plan.dwg  
November, 2009  
195111983

Client/Project

CITY OF NEWTON - DPW

CONTRACT 1

# WABAN HILL RESERVOIR UPGRADE

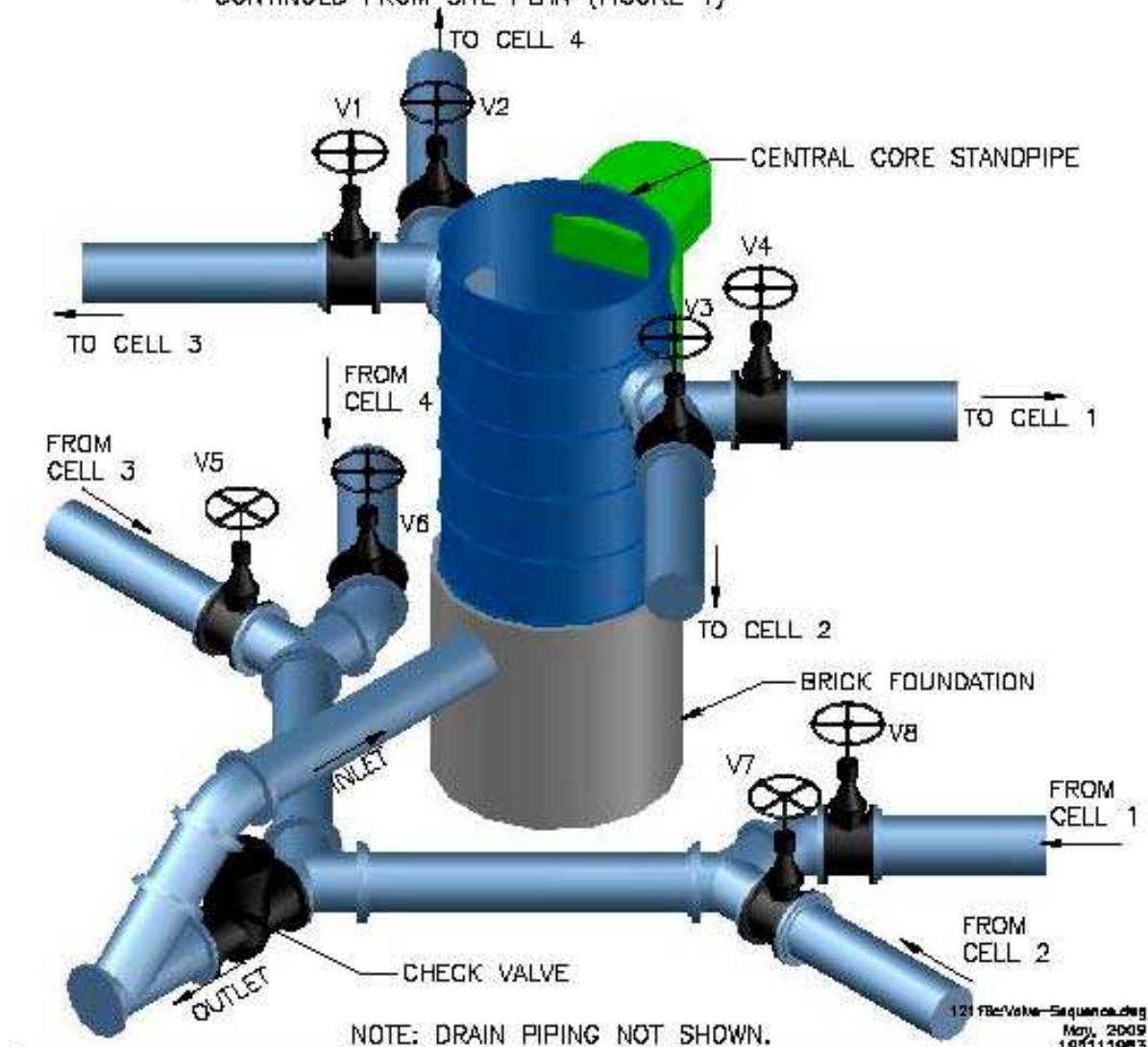
Figure No.

1

## SITE PLAN

SEQUENCE OF OPERATION					
VALVE	NORMAL	STANDPIPE OFF-LINE	OPERATION SEQUENCE	RETURN TO SERVICE	OPERATION SEQUENCE
V1	OPEN	CLOSED	3*	OPEN	4*
V2	OPEN	CLOSED	3*	OPEN	4*
V3	OPEN	CLOSED	3*	OPEN	4*
V4	OPEN	CLOSED	3*	OPEN	4*
V5	OPEN	CLOSED	3*	OPEN	1
V6	OPEN	CLOSED	3*	OPEN	1
V7	OPEN	CLOSED	3*	OPEN	1
V8	OPEN	CLOSED	3*	OPEN	1

\* CONTINUED FROM SITE PLAN (FIGURE 1)



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Client/Project  
CITY OF NEWTON - DPW  
CONTRACT 1  
WABAN HILL RESERVOIR UPGRADE  
Figure No.  
**2**  
Title  
**EXISTING  
GATE CHAMBER**

## APPENDIX B

# INSPECTION REPORT



P. O. Box 177  
Raynham Center, MA 02768  
Phone: 508-279-9965  
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# Utility Service Co.

I N C O R P O R A T E D



P. O. Box 1350  
535 Courtney Hodges Blvd.  
Perry, Georgia 31069  
Phone: 800-223-3695

## THE WABAN HILL RESERVOIR CENTER DRUM NEWTON, MASSACHUSETTS MARCH 17, 2009



[WWW.UTILITYSERVICE.COM](http://WWW.UTILITYSERVICE.COM)

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## QUALITY OF SERVICES

April 29, 2009

Dear Mr. McCarthy,

Enclosed is the inspection report for the above referenced project. This report contains summary data for the tank, a description of the project background, procedures used, the detailed findings of the inspection and the recommendations associated with those findings. In addition, detailed measurement data, additional photographs and narrated video of the inspection are included, if applicable. The report is comprised of the visual observations made during an inspection as well as information obtained from utility personnel, the tank information plate as well as any additional reports, diagrams or other materials provided.

The information contained herein is as accurate as could be obtained by Utility Service Company, Inc. personnel at the time of the inspection. No other assurance or warranty is expressed or implied. We assume no responsibility for any errors or omissions in this report, but will attempt to resolve concerns with the content of this report upon request.

Any estimates or opinions with respect to tank rehabilitation provided by Utility Service Company, Inc. in this report are based on USCI's experience and qualifications as a consultant and represent its best judgment as an experienced and qualified consultant familiar with the construction industry. Since USCI has no control over costs of labor, materials, equipment or services furnished by others or over competitive bidding or market conditions, it cannot guarantee that proposals, bids or actual project costs or construction costs will not vary from any estimates or opinions of costs prepared by USCI.

Since the condition of the storage facility will change over time, the accuracy of the condition of the storage facility described herein will decrease with time. This report can no longer be considered accurate when the date for re-evaluation specified in the recommendations has been reached. The storage facility should be re-inspected to determine the current conditions at that time.

Thank you for your attention in this matter.

Sincerely,

Utility Service Company, Inc.



David L. Merithew, General Manager  
DLM/elm

## TANK DATA

**TANK NAME:** Waban Hill Reservoir Center Drum

**DATE:** March 17, 2009      **INSPECTED BY:** Ken Lunetta

**PREPARED FOR:**

Mr. Gary McCarthy  
Stantec Consulting Services, Inc.  
Westford Office Park  
5 Lan Dr, Suite 300  
Westford, MA 01886

**TANK LOCATION:**

**Street:** Waban Hill Rd North  
**City:** Newton  
**State:** MA

**TANK SIZE:**

**Diameter:** 7.5'  
**Height:** 12.5'  
**Capacity:** 3000± Gallons

**CONSTRUCTION:**

**Type of Structure:** Center Drum  
**Number of Shell Sections:** Five  
**Number of Manholes:** N/A  
**Type of Foundation:** Brick

**DATE CONSTRUCTED:** Early 1900s      **BY:** Unknown      **CONTRACT NO:** N/A

## **BACKGROUND & PROCEDURES**

The subject center drum was inspected to document the extent of corrosion and to measure the steel plate thickness with an ultrasonic thickness gauge.

For the purposes of this inspection, the exterior surfaces were physically accessed in order to perform a detailed visual assessment as well as thickness measurement and adhesion testing of the existing coatings. In addition, localized areas on the exterior of the structure were cleaned of all corrosion products in order to identify and measure any metal loss revealed. The shell plate thickness was measured using an ultrasonic thickness gauge in order to establish existing plate thickness and, if possible, the percentage reduction in plate thickness due to interior metal loss. All ultrasonic thickness measurements were recorded and all prevailing conditions were documented with digital photographs.

## INSPECTION DATA

### EXTERIOR SURFACES

The coatings on the exterior surfaces of the subject tank are in poor to fair condition, with evidence of deteriorated coatings throughout the shell plates. The majority of the deterioration is along edges of old loose coating, lap seams and rivet heads resulting in light to medium grade rust formation. At least 25% of all shell plates is affected with this type of deterioration to some degree or another.

Localized areas of heavier corrosive activity and rust scale buildup were observed along a three foot long band of the bottom shell plate immediately above the tank transition to the bottom cone section, as illustrated in the attached photographs.

Active wet spots were noted along this entire area, which when probed revealed an extensive degree of metal loss occurring. This area has apparently been weeping for an extended period of time, as evidenced by the presence of stratified layers of rust scale buildup.

An attempt was made to de-scale several areas to determine the extent of metal loss currently taking place, however the entire area appears weak and brittle and trapped moisture was released when probed. Further probing was ceased so that the area would not be compromised, which could have resulted in a more significant leak and possible structural failure of the bottom plate.

Ultrasonic thickness measurements in the general area revealed plate thicknesses ranging from a low of .179 up to .294 in the areas adjacent to the wetness. Please be advised that the actual amount of metal loss is probably greater, especially along the areas exhibiting the heaviest amount of rust scale, however as these surfaces were not de-scaled the area could not be measured with by ultrasonic methods.

The remainder of the bottom shell ring as well as the remaining upper four shell rings was also measured with an ultrasonic thickness gauge, with the plate thickness found to be as outlined below and as shown on the printouts included with this report.



Photograph #1



Photograph #2



Photograph #3

Ring #1 .195 to .309 inches  
Ring #2 .249 to .308 inches  
Ring #3 .227 to .301 inches  
Ring #4 .218 to .298 inches  
Ring #5 .213 to .339 inches

Please be advised that the ultrasonic measurements listed above include the existing coating thickness, which averaged 22.01 mils or .022 inches. When the average dry film thickness readings are subtracted from the ultrasonic readings, the overall plate thickness is further reduced.



Photograph #4

## INTERIOR SURFACES

The interior of the tank was not dewatered at the time of this inspection, however the majority of the surfaces were still visible. The coatings are in poor condition with evidence of a significant degree of failure noted throughout the majority of all surfaces. This failure has resulted in extensive medium to heavy rust, rust scale and medium to large rust tubercle formations throughout, especially along the lower four cylinder sections below the high water line, as depicted in photograph #5.



Photograph #5

The presence of the heavy rust, rust scale buildup and tubercle formations all suggest the potential for at least moderate to severe metal loss of the affected surfaces.

The interior surfaces corresponding to the previously referenced leak on the exterior of the tank were not readily available for inspection due to the water in the tank, however it should be anticipated that these surfaces are also in poor condition with extensive metal loss taking place.



Photograph #6

If this tank is to remain in service for an extended period of time, immediate repairs are warranted. The repairs should include abrasive blast cleaning of all surfaces followed by plate welding repairs and the application of a 100% solids epoxy liner to protect all interior surfaces as further outlined in the recommendation section of this report.

## STRUCTURAL

The structural integrity appears to be compromised, especially along the bottom plate to cone section junction. There is little head pressure at this location, however if the tank vibrates excessively there is always the potential for structural failure of the plate resulting in major water loss within the center drum. Structural failure will also result in loss of operational facilities of the four tank reservoir system as the referenced drum is an integral component of this system.

At a minimum, it will be necessary to repair the affected area to prevent severe leakage from occurring. This repair should consist of draining the tank below the area of current leakage followed by removing all rust and scale from the interior and exterior faces and applying an epoxy patch to both the interior and exterior face of the affected areas.

If it is decided to perform more permanent repairs, then complete rehabilitation of all surfaces is required as outlined in the Recommendation section of this report.

## **SITE**

The subject tank is in the basement of the central building for the Waban Hill underground reservoir complex. Access to the tank is gained down a short set of stairs to the basement area. The basement also houses additional distribution piping. Specific containment and ventilation requirements will be required during the required maintenance.

There is adequate room for contractor's vehicles, equipment and materials outside this building, which would be necessary for the rehabilitation of the tank's interior and exterior surfaces.

## RECOMMENDATIONS

In order to preserve the integrity of the tank's interior surfaces and prohibit any furtherance in metal loss of the already exposed steel surfaces, it is recommended that the interior surfaces of the tank be scheduled for complete rehabilitation as soon as feasible to do so. At such time as the tank is scheduled for rehabilitation it is recommended that the following scope of work be performed.

- All interior surfaces should be abrasive blast clean to an SSPC-SP #6 commercial blast grade to expose the extent of metal loss taking place.
- All areas of metal loss representing a 30% or greater reduction in plate thickness should be spot welded so as to bring the pitted surface at least flush with the original plate surface then ground smooth to ensure continuity of the applied coating system. An estimated 500 pits will require welding.
- All areas of concentrated metal loss should be patched with steel plates conforming to the contour of the area of the tank to be repaired. The size and shape of the patches will be determined in the field, however in no case should the thickness of the patch be less than ¼ inch. An estimated 5 square feet of ¼" thick patch plates will be required.
- All interior surfaces should then be abrasive blast clean to an SSPC-SP #10 Near-White metal grade followed by the application of two (2) coats of an N.S.F. approved 100% solids epoxy applied to a dry film thickness of 8.0 to 10.0 mils per coat, with a final dry film thickness of no less than 16.0 mils.
- Provisions for the application of up to 5 gallons of 100% solids epoxy pit filler should be included in the scope of work to be performed.

At the same time the interior surfaces are addressed, it would be cost effective to perform maintenance to the exterior surfaces. If and when this tank is next maintained, it will be necessary to remove all existing coatings and corrosion products in order to provide for a suitable substrate for the new coatings to be applied as follows.

- All exterior surfaces should be abrasive blast clean to an SSPC-SP #6 commercial blast grade.
- Steel patch plates may be required along the bottom shell ring at the area of current leakage, however the extent of patching will not be known until after the affected surfaces are abrasive blast cleaned as referenced above.
- All exterior surfaces should be coated with two (2) coats of high solids epoxy applied to a dry film thickness of 4.0 to 6.0 mils per coat with a final dry film thickness of no less than 10.0 mils.
- Appropriate ventilation requirements should be established to prevent fugitive dust from contaminating the adjacent reservoir tanks.

## APPENDICES

### **APPENDICES FOR THIS REPORT INCLUDE:**

#### **Individual DFT Measurements for:**

Exterior Surfaces

#### **Individual UT Measurements for:**

Exterior Surfaces

#### **Additional Materials that Accompany this Report:**

Additional Digital Photographs in a pdf gallery

## Waban Hill Reservoir Center Drum Newton, MA 3/17/09 UT

---

### Readings - Ring #4

1	0.276
2	0.285
3	0.283
4	0.224
5	0.218
6	0.237
7	0.258
8	0.243
9	0.271
10	0.298

### Summary - Ring #4

Max  
0.298  
Min  
0.218  
Mean  
0.259  
StdDev.  
0.028

### Annotations - Ring #4

Gage Model: UTG  
Gage S/N: 616695  
Probe Model: STD  
Probe S/N:  
User:  
Part:

## Waban Hill Reservoir Center Drum Newton, MA 3/17/09 UT

---

### Readings - Ring #5

1	0.263
2	0.248
3	0.213
4	0.276
5	0.277
6	0.260
7	0.339
8	0.261
9	0.243
10	0.274

### Summary - Ring #5

Max  
0.339  
Min  
0.213  
Mean  
0.265  
StdDev.  
0.032

### Annotations - Ring #5

Gage Model: UTG  
Gage S/N: 616695  
Probe Model: STD  
Probe S/N:  
User:  
Part:

## Waban Hill Reservoir Center Drum Newton, MA 3/17/09 UT

---

### Readings - Ring #3

1	0.301
2	0.280
3	0.238
4	0.300
5	0.295
6	0.279
7	0.286
8	0.286
9	0.227
10	0.293

### Summary - Ring #3

Max  
0.301  
Min  
0.227  
Mean  
0.278  
StdDev.  
0.026

### Annotations - Ring #3

Gage Model: UTG  
Gage S/N: 616695  
Probe Model: STD  
Probe S/N:  
User:  
Part:

## Waban Hill Reservoir Center Drum Newton, MA 3/17/09 UT

---

### Readings - Ring #2

1	0.257
2	0.273
3	0.293
4	0.276
5	0.251
6	0.283
7	0.305
8	0.249
9	0.308
10	0.282

### Summary - Ring #2

Max  
0.308  
Min  
0.249  
Mean  
0.278  
StdDev.  
0.021

### Annotations - Ring #2

Gage Model: UTG  
Gage S/N: 616695  
Probe Model: STD  
Probe S/N:  
User:  
Part:

## Waban Hill Reservoir Center Drum Newton, MA 3/17/09 UT

---

### Readings - Ring #1

#### adjacent to weeps

1	0.259
2	0.262
3	0.273
4	0.195
5	0.275
6	0.241
7	0.251
8	0.267
9	0.294
10	0.179

### Summary - Ring #1

#### adjacent to weeps

Max

0.294

Min

0.179

Mean

0.250

StdDev.

0.036

### Annotations - Ring #1

#### adjacent to weeps

Gage Model: UTG

Gage S/N: 616695

Probe Model: STD

Probe S/N:

User:

Part:

## Waban Hill Reservoir Center Drum Newton, MA 3/17/09 UT

---

### Readings - Ring #1

1	0.263
2	0.246
3	0.262
4	0.309
5	0.284
6	0.195
7	0.272
8	0.284
9	0.291
10	0.279

### Summary - Ring #1

Max  
0.309  
Min  
0.195  
Mean  
0.269  
StdDev.  
0.031

### Annotations - Ring #1

Gage Model: UTG  
Gage S/N: 616695  
Probe Model: STD  
Probe S/N:  
User:  
Part:

## Waban Hill Reservoir Center Drum Newton, MA 3/17/09 DFT

---

### Readings - Exterior Shell

1	10:53:33 AM	3/17/2009	25.6
2	10:53:38 AM	3/17/2009	23.2
3	10:53:41 AM	3/17/2009	23.5
4	10:53:43 AM	3/17/2009	23.6
5	10:53:45 AM	3/17/2009	22.7
6	10:53:47 AM	3/17/2009	26.5
7	10:53:50 AM	3/17/2009	20.9
8	10:54:30 AM	3/17/2009	19.0
9	10:54:32 AM	3/17/2009	19.8
10	10:54:34 AM	3/17/2009	20.3
11	10:54:50 AM	3/17/2009	20.4
12	10:54:52 AM	3/17/2009	19.9
13	10:54:54 AM	3/17/2009	18.5
14	10:54:56 AM	3/17/2009	26.1
15	10:54:58 AM	3/17/2009	20.9
16	10:55:01 AM	3/17/2009	21.2

### Summary - Exterior Shell

Max	26.50
Min	18.50
Mean	22.01
StdDev.	2.53

### Annotations - Exterior Shell

Gage Model: 6000F3  
Gage S/N: 66013  
Probe Model: F  
Probe S/N: 43253  
User:  
Part:  
Substrate:

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Exterior Tank 1



Exterior Tank 2



Exterior Roof 1



Exterior Roof 2



Exterior shell 1



Exterior shell 2

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Exterior shell 3



Exterior shell 4



Exterior shell 5



Exterior shell 6



P3179863



P3179866

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Exterior shell leaks 1



Exterior shell leaks 2



Exterior shell leaks 3



Exterior shell leaks 4



Exterior shell leaks 5



Exterior shell leaks 6

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Exterior shell leaks 7



Exterior shell leaks 8



Overflow 1



Overflow 2



Overflow 3



Piping 1

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Piping 2



Piping 3



Piping 4



Piping 5



Piping 6



Piping 7

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Valves 1



Valves 2



Valves 3



Valves 4



Valves 5



Misc Interior 1

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Misc Interior 2



Misc Interior 3



Misc Interior 4



Misc Interior 5



Misc Interior 6



Misc Interior 7

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Misc Interior 8



Exterior Site 1



Exterior Site 2



Exterior Site 3



Exterior Site 4



Exterior Site 5

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Exterior Site 6



Exterior Site 7



Interior 1



Interior 2



Interior 3



Interior 4

**Waban Reservoir Center Drum**  
**Newton, MA**  
**March 17, 2009**



Interior 5



Interior 6



Interior 7



Interior 8